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Elastic Networks

YesWare

Applications User's Guide

Software Release 3.00

Document Revision 3.00 (Pilot Release)
Publication Date: December 2000

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About this document

This document provides instructions for using the YesWare software suite to manage an EtherLoop or Ethernet system.

Audience

The audience for this document includes network planners, installation technicians, network administrators, and anyone who may be charged with provisioning or maintaining the YesWare system.

Introducing Visitor-Based Networking and YesWare

This chapter introduces the software residing on the BitStorm Server, the concepts of visitor-based networking, and the purpose and function of YesWare in a visitor-based network.

Chapter topic list

This chapter includes the following topics.

Topic	See
YesWare and other BitStorm Server software	page 1-2
Visitor-based networking	page 1-4
YesWare and VBN	page 1-5
Service areas and visitor billing	page 1-7
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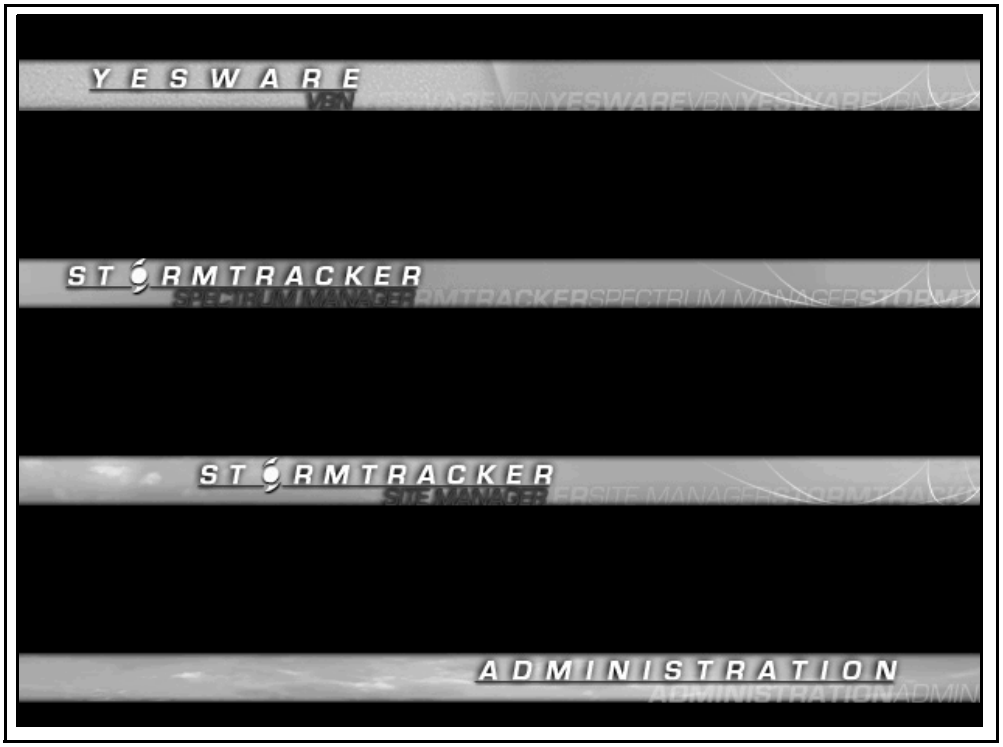
YesWare and other BitStorm Server software

YesWare is one of four software groups that reside on the BitStorm Server. The software groups supported by the BitStorm Server include the following:

- **YesWare-VBN**
- **StormTracker-Spectrum Manager**
- **StormTracker-Site Manager**
- **Administration**

Figure 1-1 shows the BitStorm Server main page with the four software groups. The following sections describe each of these software groups.

Figure 1-1
BitStorm Server main page



YesWare-VBN

YesWare-VBN is used to manage an EtherLoop or Ethernet VBN (see “YesWare VBN transport systems” on page 1-14). YesWare software "modules" support the following VBN functions:

- seamless Internet or intranet access to "visitor" end-user computers
- host site customization and service branding
- flexible options for visitor authentication and service billing

The remainder of this document describes how to use the **YesWare-VBN** software to implement and manage an EtherLoop and/or Ethernet VBN.

StormTracker-Spectrum Manager

StormTracker-Spectrum Manager is an optional BitStorm Server component (purchased separately) used to "fine-tune" the performance of EtherLoop modems. The **StormTracker-Spectrum Manager** supports the following major functions:

- adjust EtherLoop modem signal transmission to maximize protection from signal interference caused by other high-speed data services in the same binder group as the EtherLoop lines
- maximize bandwidth available for EtherLoop modem signal transmission in binder groups with no other high-speed data services

The *StormTracker-Spectrum Manager User Guide* contains the instructions for using the **StormTracker-Spectrum Manager** software.

StormTracker-Site Manager

StormTracker-Site Manager is used to manage the EtherLoop modems supported by the BitStorm Server and YesWare. The **StormTracker-Site Manager** supports the following major functions:

- automatically detect all EtherLoop modems in the system
- build and manage the modem database
- monitor the performance EtherLoop modems
- configure Simple Network Management Protocol (SNMP) support for the modems
- upgrade modem firmware

The *StormTracker-Site Manager and Administration User Guide* contains the complete instructions for using the **StormTracker-Site Manager** software.

Administration

The **Administration** software is used to manage the BitStorm Server. The **Administration** software group supports the following major functions:

- shutdown and restart the server
- upgrade the server software
- configure the server network connections
- create users and manage user access to the server
- software license management and licensing updates

The *StormTracker-Site Manager and Administration User Guide* contains the instructions for using the **Administration** software.

Visitor-based networking

Until recently, nearly all Ethernet local area networks (LANs) were private. Developed for private use, owned and maintained by private organization, these networks were focused on providing connectivity for a select group of people such as employees. Everyone who used the network was supposed to be able to use it, and the costs of providing that network were considered overhead.

A Visitor-Based Network (VBN) is a network intended for use by temporary users, such as hotel guests, who need a simple, temporary network connection they can use quickly and easily without the assistance of an IT specialist.

Challenges of the VBN

Implementing a VBN presents special challenges to the service-provider. Service billing, not usually a requirement in private LANs, must be carefully monitored and controlled. Resource usage, which is governed almost exclusively by happenstance in private LANs, must also be carefully controlled. Visitor access must be authenticated, but must also be simple. Visitor services must be platform-independent so that guests using a wide range of platforms have access to VBN services.

VBN service-provider benefits

A VBN is a valuable service, and service providers who implement VBN services can create tremendous new revenue and service opportunities within several markets:

- Hospitality/convention centers
- Public convenience kiosks
- Training and seminar rooms
- Sales centers
- Press rooms
- Corporate meeting rooms
- University and business campuses

All of these areas have frequent, business-oriented visitors who would likely use the services of a VBN if one were available. VBN service-providers who want to serve these markets must provide simple connectivity to the VBN, and also have ways to bill for access and control access through network authentication.

YesWare and VBN

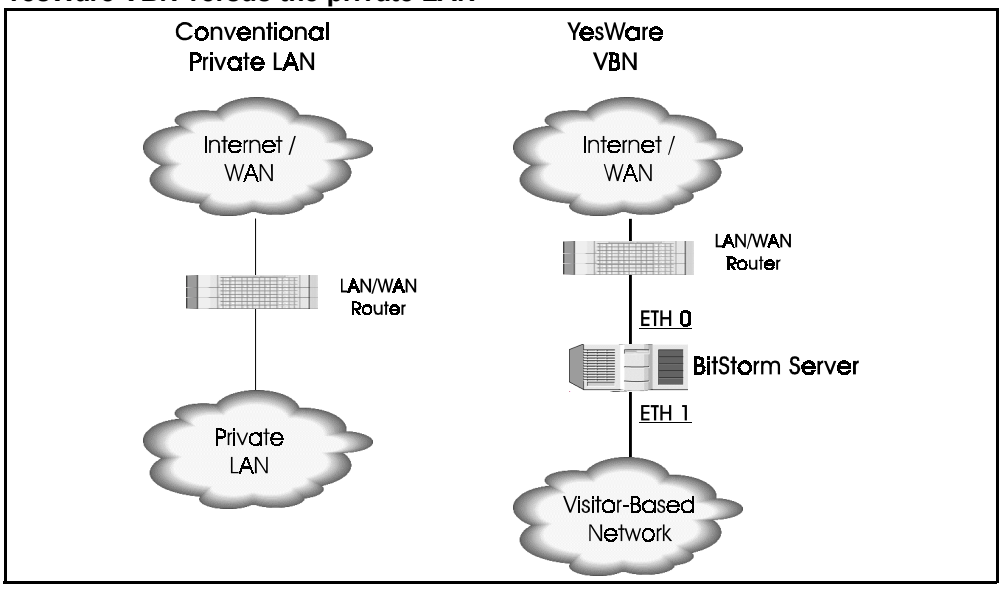
YesWare is a suite of system management software residing on the BitStorm Server (see “YesWare and other BitStorm Server software” on page 1-2). YesWare makes it simple to deliver high-speed Internet access connectivity for a VBN at any location/market. Its "guest-friendly" interface allows plug-and-play simplicity for the mobile computer user, without special software downloads or reconfiguration of TCP/IP settings.

In addition to solving Internet connectivity issues for end-users, YesWare has several features that are key to generating new revenue streams for service-providers. The YesWare software suite provides port authorization controls and automated billing for ports on EtherLoop modems and/or Ethernet switches, allowing Internet access only to authorized, billable guest users. YesWare also supports EtherLoop modem administration functions.

Creating a YesWare VBN

Figure 1-2 shows how simple it is to create a YesWare VBN. Virtually any Internet-ready Ethernet LAN can become a VBN with the addition of the BitStorm Server device equipped with YesWare. The BitStorm Server provides the necessary layer of management between visitors and the Internet gateway router to allow seamless connectivity for the visitors. YesWare has the host of features required for service-providers to bill and control this access.

Figure 1-2
YesWare VBN versus the private LAN



Local host network connection requirements

The network hosting the BitStorm Server must have the following:

- Ethernet 10/100Base-T termination for the BitStorm Server network interface
- network connection to an existing local area network (LAN) or wide area network (WAN) router
- access to the Internet through an Internet Service Provider (ISP) or other Internet account
- valid TCP/IP network address configuration (IP address, network mask, gateway address) for the BitStorm Server.

Table 1-1 lists the protocol requirements for a network supporting the BitStorm Server, based on the open systems interconnection (OSI) seven-layer model.

Table 1-1
YesWare host network protocol requirements

OSI layer	BitStorm Server protocol requirement
1/Physical	Category 5 unshielded twisted pair (UTP) wiring and infrastructure with RJ-45 terminations
2/Data-link	IEEE 802.3 Ethernet 10/100Base-T
3/Network	Internet Protocol (IP)
4/Transport	Transmission Control Protocol (TCP)
5/Session	No specification
6/Presentation	No specification
7/Application	Internet Explorer 4.0+ or Netscape Navigator 3.0+

Visitor computer requirements

All YesWare visitor computers must have an Ethernet 10Base-T network interface card (NIC) configured to use the TCP/IP networking protocol. This means the visitor computer must either have a specified IP address, network mask, and gateway, or be configured to use DHCP (Dynamic Host Configuration Protocol).

A YesWare visitor computer can be configured with a TCP/IP address for the resident LAN or a non-resident LAN. YesWare visitors can also be configured for a random (non-existent) LAN, as long as the computer's TCP/IP configuration adheres to basic TCP/IP addressing rules. For example, an YesWare visitor computer cannot be a duplicate of another visitor IP address or have a "broadcast" address such as **255.255.255.255** as its assigned IP address.

Service areas and visitor billing

YesWare service areas YesWare systems can provide VBN services in the following functional service areas:

- Guest rooms
- Public areas
- Conference rooms

Table 1-2 describes each of these YesWare service areas. The following sections describe the YesWare service billing requirements and port configuration requirements to provision each of these service areas.

> ***Note:*** Chapter 6, "Billing for YesWare services and using the Billing module," describes how to implement YesWare visitor billing.

Table 1-2
YesWare service and billing options

YesWare Service Area	Service Description
Guest rooms	Guest room service for hospitality customers in hotel rooms.
Public areas	Service for kiosks and other public areas such as hotel lobbies where access to the port is uncontrolled.
Conference rooms	Conference room service for scheduled meetings and conferences.

Billing and payment methods

YesWare billing supports the following payment methods:

- Room Billing
- Credit-Card Billing
- Prepaid Billing
- Conference Room Billing (manual)

Table 1-2 on page 1-7 lists each of the YesWare service areas and the billing methods available for each area. The following sections describe the requirements for the available billing methods.

> ***Note:*** Chapter 6, "Billing for YesWare services and using the Billing module," describes how to implement the YesWare billing methods.

Table 1-3
YesWare service and billing options

YesWare Service Area	Available Billing/Payment Methods
Guest rooms	• Room Billing • Credit-Card Billing • Prepaid Billing
Conference rooms	• Conference Room Billing (manual) • Credit-Card Billing • Prepaid Billing
Public areas	• Credit-Card Billing • Prepaid Billing

Room Billing

Room Billing is used only in visitor guest rooms. Using this billing method, Internet access charges appear on the Service Detail Record (SDR) log for the room generated by YesWare. Room Billing can be integrated with the facility Property Management System (PMS) so that YesWare service charges appear as an additional "room charge" on the guest room bill.

Credit-Card Billing

Credit-Card Billing can be used in any YesWare service area. Using this billing method, YesWare Internet access charges appear on the customer's credit card bill. Credit-Card Billing requires that the YesWare service provider have a merchant account with **Authorize.Net**, an Internet credit-card processing company.

Prepaid Billing

Prepaid Billing can be used in any YesWare service area. Using this billing method, customers pay service charges to purchase system Authorization Codes that allow access to YesWare Internet services. Prepaid Billing requires that the YesWare service provider generate an "**Auth Code"** using the *Billing* module.

Conference Room Billing

Conference Room Billing is a manual billing method in which customers pay for Internet-routable IP addresses. The IP addresses used for Conference Room Billing must be purchased from the Internet service-provider (ISP) and re-sold for a flat fee by the service-provider.

The Conference Room Billing IP addresses are generated from an address pool using the **Static IP Provisioning** function in the *Provisioning Wizard* module. The **Port Schedules** function in the *Switches and Ports* module specifies the IP addresses from the available pool and generates a printable receipt to give to the customer and keep for provider records.

The purchase price can be tracked either using the receipts generated by the **Port Schedules** function in the *Switches and Ports* module, or through SDR billing logs.

CAUTION - Conference Room Billing gives YesWare visitors unlimited system access

Conference visitors with static IP addresses generated using the **Port Schedules** function are not required to authenticate to receive YesWare services. Because these visitors are essentially on a separate logical network with Internet-routable IP addresses, visitors with a **Port Schedules-**generated IP address will have unlimited access to any YesWare-VBN system port for the scheduled conference period.

Also, visitor computers receive no protection from the BitStorm Server firewall, so firewall protection must be implemented using other means.

Chapter 12, “YesWare Static IP configuration and port scheduling” describes the requirements and procedures for using Conference Room Billing.

VBN billing methods and port Use Context requirements

YesWare VBN billing methods have certain port Use Context requirements. Use Contexts are provisioned for each EtherLoop or Ethernet VBN port configuration. Payment methods available include **Prepaid Billing**, **Room Billing**, and **Credit Card Billing**. YesWare port Use Contexts include **Network**, **Public**, **Guest**, or **Credit**.

Note: The **Network** Use Context is not a billable setting

Table 1-4 lists the port Use Context requirements for each of the YesWare billing methods.

Table 1-4
Payment Methods and port Use Context requirements

Billing Payment Method	Port Use Context requirement
Room Billing	Guest
Credit Card Billing	Credit
Prepaid Billing	Public
Conference Room Billing (manual)	N/A

Visitor internetwork access

YesWare visitors receive access to the Internet or other internetwork through YesWare's InterProxy capability or by configuring YesWare to support static, routable IP addresses. The following sections describe YesWare's visitor internetwork access capabilities, and the requirements visitor computers must meet to receive YesWare internetwork access.

InterProxy-based internetwork access

The InterProxy function is unique in that it accepts traffic from TCP/IP clients regardless of a client's IP address configuration. The InterProxy is a specialized network address translator that enables YesWare visitors with non-local IP addresses to access the Internet or company intranet without re-configuring any IP settings. One BitStorm Server unit can connect hundreds of random/non-local visitors to the router/gateway of either an Internet Service Provider (ISP) or the company intranet.

Visitors receiving InterProxy-based internetwork access complete the following process:

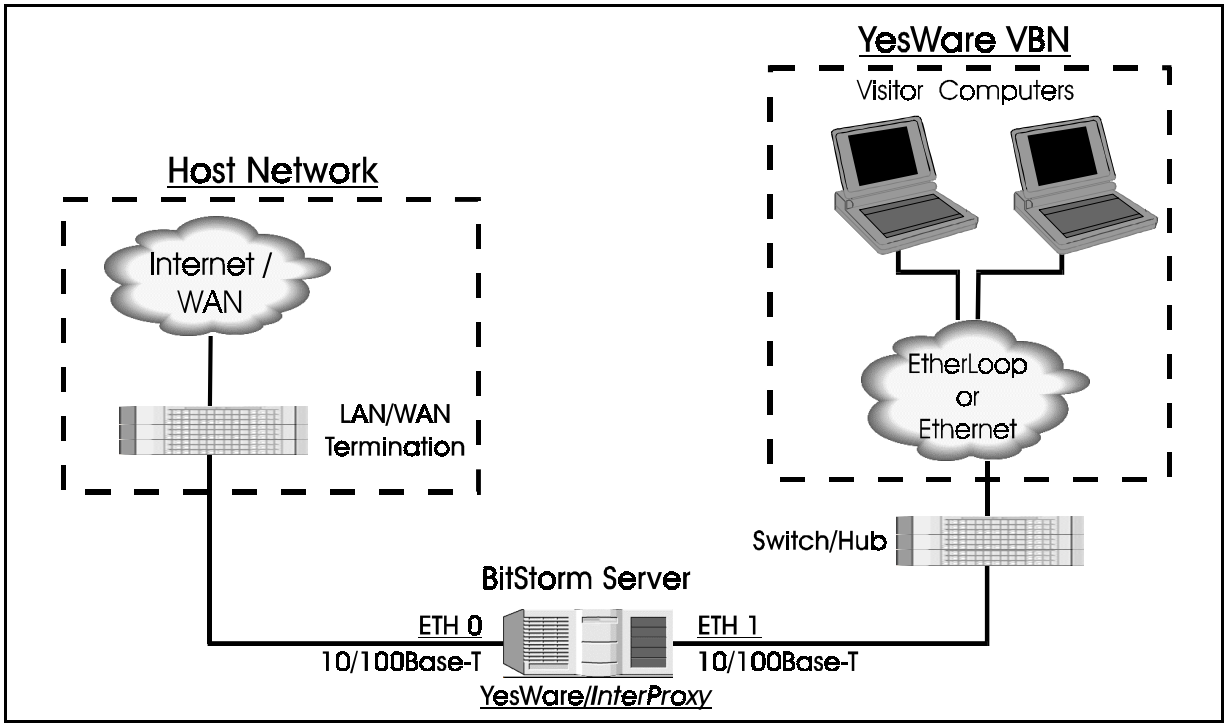
1. The visitor connects to the YesWare VBN through either an EtherLoop modem or Ethernet switch port, starts the visitor computer and attempts to browse the Internet.
2. The system displays an authentication page, and the visitor provides the required authentication information.
3. The EtherLoop or Ethernet system connects over an intermediate switch or hub to the BitStorm Server **ETH 1** interface.
4. At the BitStorm Server, the InterProxy function translates the non-local visitor IP address to appear local to the host network.

   Note: If the visitor computer is configured for Dynamic Host Configuration Protocol (DHCP), the InterProxy assigns it an address from its DHCP pool.

5. The InterProxy routes the VBN traffic from the **ETH 1** interface over to the **ETH 0** interface
6. The **ETH 0** interface connects to the host LAN or LAN/WAN termination which is connected to a WAN such as the Internet or a corporate intranet.

Figure 1-3 on page 1-12 illustrates how the YesWare VBN enables InterProxy-based internetwork access and completes this process.

Figure 1-3
YesWare VBN system architecture



InterProxy configuration

The InterProxy network connection for the **ETH 1** interface is configured using the Network function in the BitStorm Server's **Administration** software. The InterProxy DHCP pool and other VBN settings are configured using the InterProxy Configure operation in the **YesWare** *Servers and Proxies* module.

InterProxy-based limitations for visitor computers

InterProxy-based internetwork access has the following limitations:

- Visitors who have assigned IP addresses that are in the same subnet as the **ETH 0** IP address will not receive internetwork access (with the exception of static IP addresses provisioned using the *Provisioning Wizard* module).
- Visitors that have a home page designated with the "don't use proxies" feature enabled for the home page will not receive internetwork access.

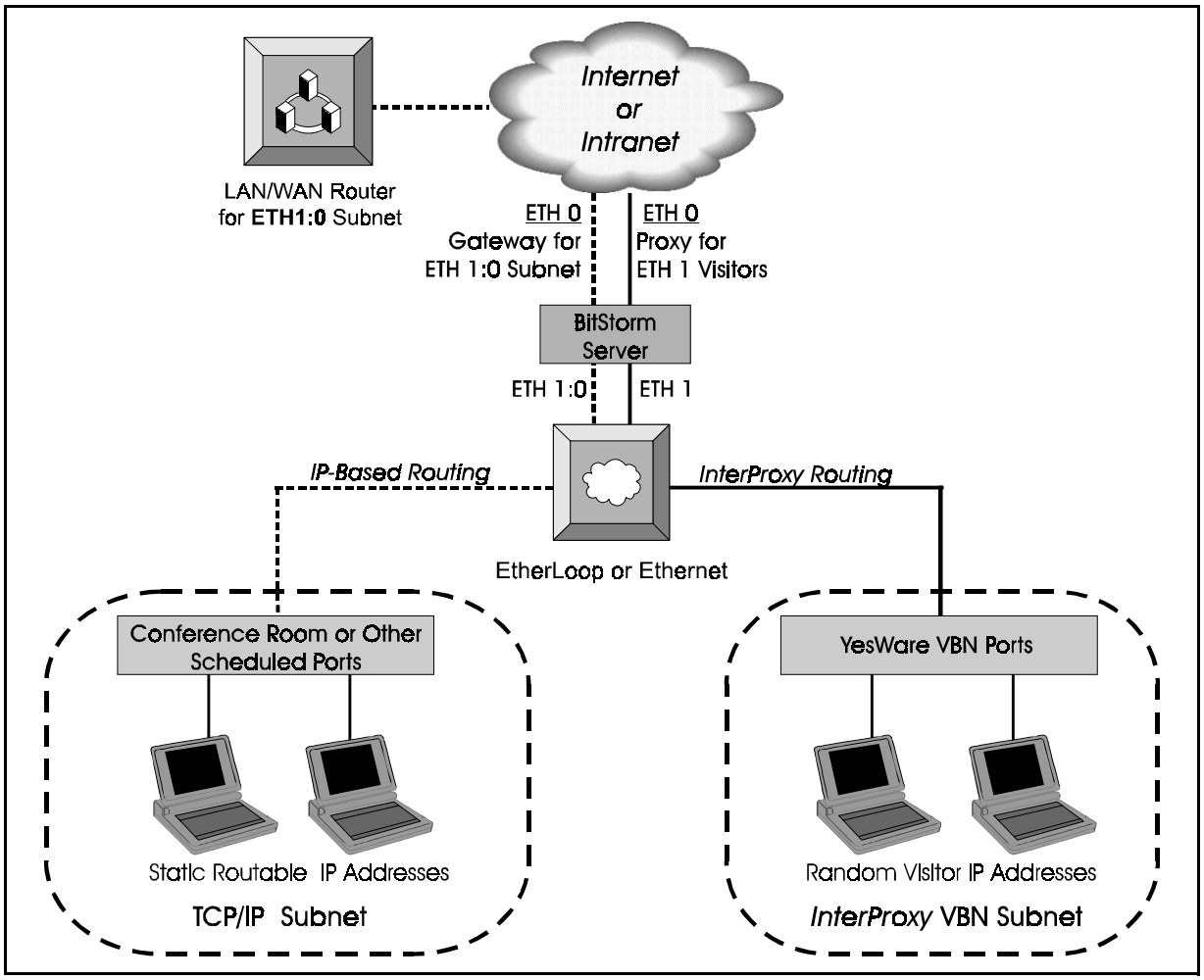
Static IP address configuration

YesWare can be configured to support static IP addresses for customers who do not want/need YesWare's InterProxy capability. Customers pay in advance to use these static IP addresses for a specified period of time, such as during a business conference.

Static IP configuration architecture

Figure 1-4 shows the architecture of the YesWare Static IP configuration compared with the InterProxy architecture. The Static IP configuration allows visitors from the **ETH 1** side of the BitStorm Server to pass through the host network (**ETH 0)** side**,** and on to a LAN/WAN without receiving InterProxy services. YesWare does this by creating a separate routable network subnet using logical port **ETH 1:0**. The **ETH 0** interface serves as the subnet gateway and transmits visitor traffic to and from this subnet.

Figure 1-4
Conference Scheduler Network Architecture



YesWare VBN transport systems

A YesWare VBN system can deliver service using EtherLoop modem pairs, Ethernet switches, or a combination of both EtherLoop and Ethernet transport systems. The following sections describe these YesWare VBN transport systems.

EtherLoop-VBN

EtherLoop is an Ethernet-based modem technology that enables TCP/IP data transmission simultaneously with voice service over the twisted-pair, Category 3 (CAT 3) telephone lines of a local loop. EtherLoop technology provides Ethernet-compatible service in locations out-of-range of standard Ethernet LANs.

EtherLoop-VBN transport systems are ideal for data transmission in environments such as hotel rooms that have no existing data network infrastructure. EtherLoop delivers data transmission speeds comparable to Ethernet at 5,000 feet and reliable service up to 21,000 feet. In addition to guest room service, YesWare allows EtherLoop modem pairs to serve any VBN service area, including conference facilities and uncontrolled public areas.

EtherLoop-VBN data transport method

Visitor computers connect physically to an EtherLoop-VBN transport system as if they were connecting to their "home" Ethernet 10/100Base-T LAN, using an Ethernet network interface card (NIC) and a Category 5 (CAT 5) cable terminated with an RJ-45 connector. EtherLoop systems transmit TCP/IP data and voiceband traffic using modem pairs configured in a point-to-point architecture.

EtherLoop modem pairs

EtherLoop modem pairs consist of a **CPE** (customer premise equipment) modem and **CO** (central office) modem. Table 1-5 describes the function of EtherLoop **CPE** and **CO** modems.

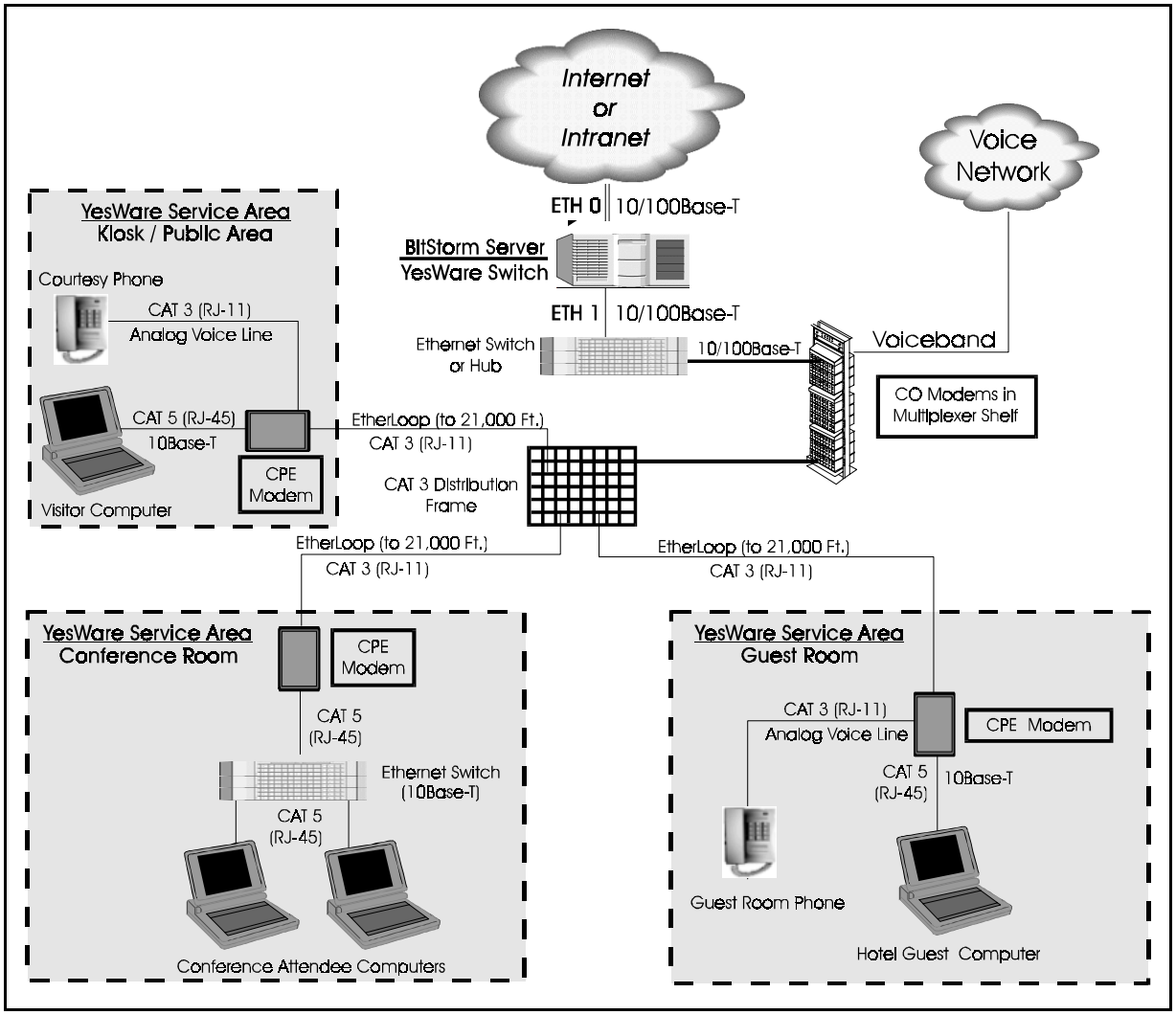
Table 1-5
EtherLoop modem pair functions

EtherLoop Modem	Function
CPE modem	The visitor computer connects to the CPE modem through an RJ-45 connection on the back of the modem. The CPE modem also has two RJ-11 jacks on its backplane. One RJ-11 connects to a phone in the room, and the second RJ-11 connects to the wall-jack of the facility phone network. The CPE modem transmits visitor data and voice to its designated CO modem over the Category 3 (CAT 3) facility phone network.
CO modem	The CO modem controls traffic flow from the CPE modem to the BitStorm Server **ETH 1** interface. The CO modem resides in a multiplexer shelf in the facility equipment room. The CO modem connects to the BitStorm Server **ETH 1** interface via an intermediate Ethernet switch/hub. The CO modems must be on the same LAN segment as **ETH 1**.

EtherLoop-VBN transport architecture

Figure 1-5 shows the transport architecture of an EtherLoop-VBN system.

Figure 1-5
YesWare EtherLoop-VBN transport system



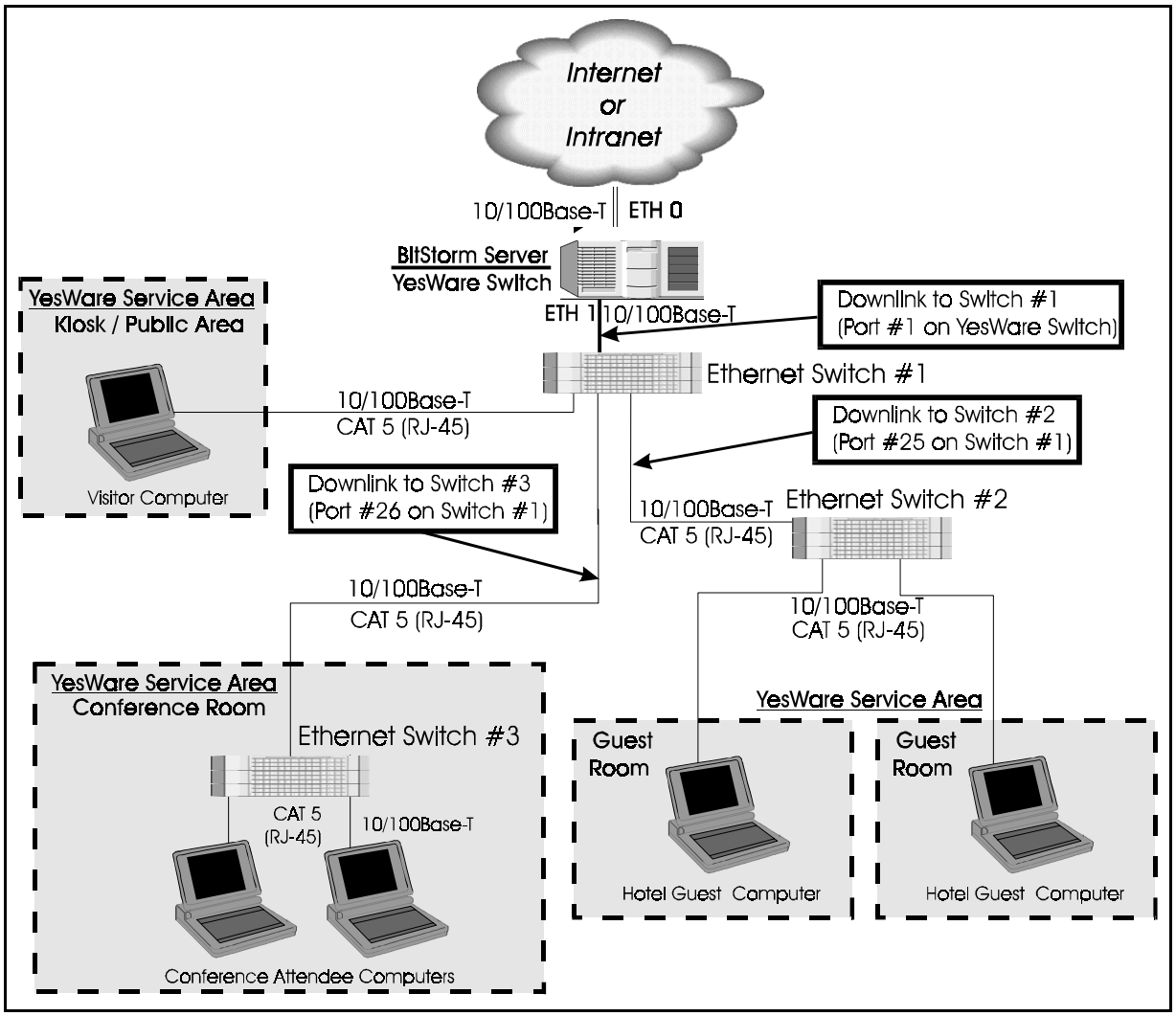
Ethernet-VBN

Ethernet-VBN systems are used in areas such as conference and meeting rooms, or in any area that has an existing Category 5 (CAT 5) Ethernet LAN infrastructure. Visitor computers connect physically to the ports on Ethernet-VBN switches as they would to a conventional Ethernet 10/100Base-T LAN.

Ethernet-VBN transport architecture

Figure 1-6 shows an example of the YesWare Ethernet-VBN transport system architecture. Chapter 5 complete instructions for provisioning Ethernet-VBN transport systems.

Figure 1-6
Ethernet-VBN transport system



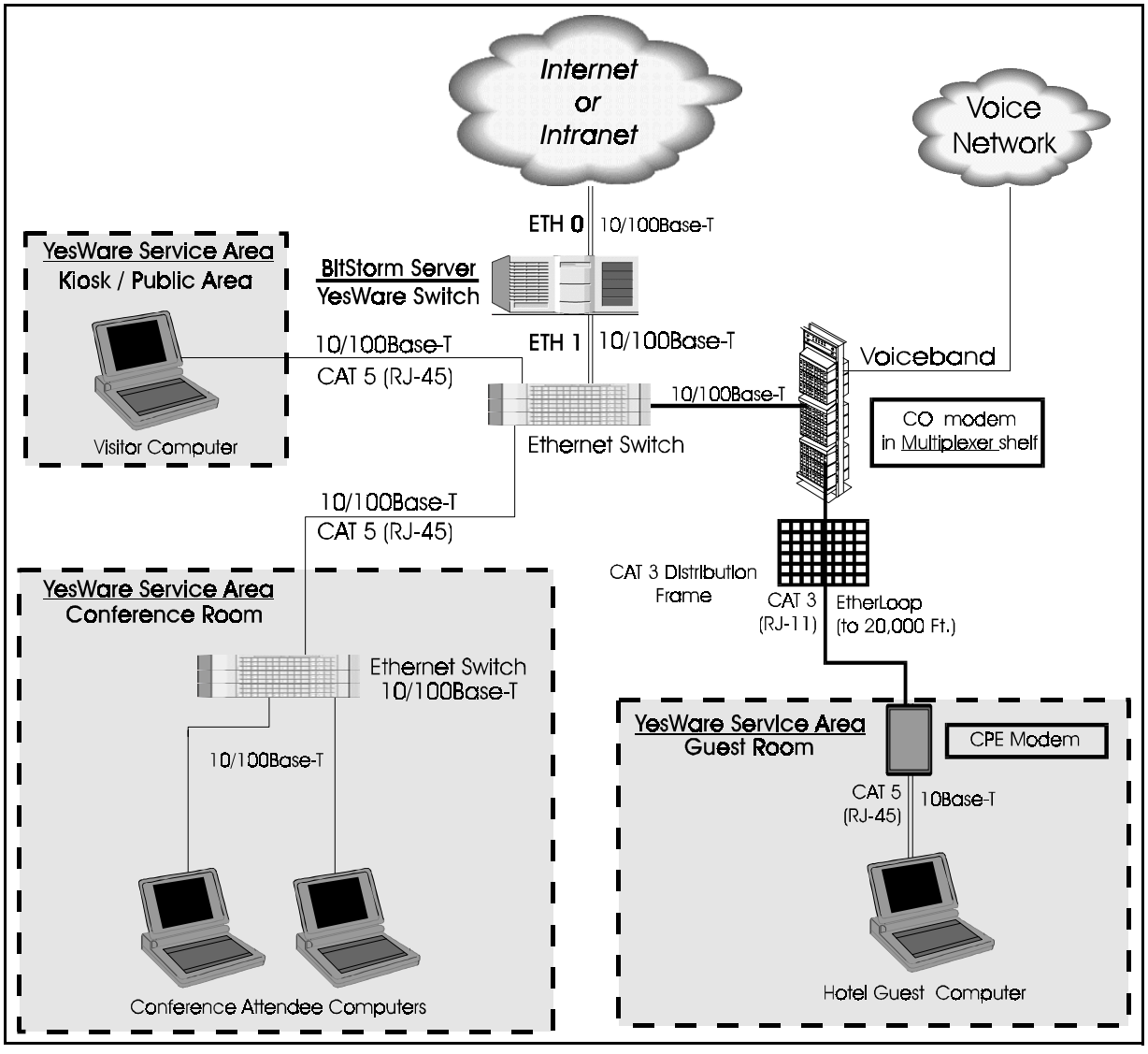
Combined EtherLoop/Ethernet VBN

The combined EtherLoop/Ethernet system serves areas where VBN service is required using both EtherLoop lines (CAT 3 wiring) and Ethernet switch ports (CAT 5 wiring).

Combined EtherLoop/Ethernet VBN system architecture

Figure 1-7 shows the YesWare combined EtherLoop/Ethernet VBN architecture.

Figure 1-7
Combined EtherLoop/Ethernet transport system



Visitor access controls

YesWare visitor service access is controlled using "authentication" web pages that require the user to provide the appropriate information before access is granted to the Internet or other YesWare services.

Authentication page usage

YesWare uses several types of authentication pages. The authentication page used by a VBN port is determined by the port Use Context provisioned for the port (see “VBN billing methods and port Use Context requirements” on page 1-10). For example, ports configured with the Credit port Use Context for Credit-Card Billing are presented with a "credit" authentication page, while ports configured to use Prepaid Billing are presented with an Auth Code authentication page.

Failed visitor authentication

Visitors who fail to successfully authenticate are directed to "service-refusal" pages that indicate that successful authentication is required for service access.

VBN web site customization

YesWare provides several methods for service providers to customize how the VBN web site looks and functions for visitors. The following sections briefly introduce each of these capabilities. Chapter 14, “Customizing the VBN web site,” describes the operation and use of these YesWare capabilities.

VBN page customization

The "look-and-feel" of VBN authentication (and service-refusal) pages determines how the initial connection looks to the visitor. All logos, colors, and text (in non-functional fields) on these pages can be replaced with information specific to the service-provider and/or host site. Authentication pages are modified by retrieving the page from the BitStorm Server, and editing the page using an HTML text editor.

Virtual Concierge

YesWare’s **Virtual Concierge** feature enables service providers to create a host-specific site linked to the BitStorm Server and filled with free content and advertising. The VBN visitor can browse the Virtual Concierge for free to obtain information about local restaurants and host amenities, but will have to accept the payment terms and conditions to receive Internet access. The Virtual Concierge function is located in the *InterProxy* module.

Service-provider home/splash page configuration

YesWare allows the administrator to designate the home/splash page on the Internet the visitor will see after connecting and authenticating on the VBN. Figure 1-8 shows an example VBN home/splash page. See Chapter 14, “Customizing the VBN web site” for instructions on how to configure home/splash pages.

Figure 1-8
Example home/splash page

System management and maintenance capabilities

YesWare supports a variety of system management and maintenance capabilities through the other software residing on the BitStorm Server. Table 1-6 lists some of the YesWare modules and functions related to system management and maintenance in the **StormTracker / Site Manager** and **Administration** software.

Table 1-6
YesWare system management and maintenance capabilities

YesWare module or function	Description
YesWare system security	YesWare has the following capabilities related to system security: • MAC address-based privacy filtering to prevent unauthorized access to visitor computers connected to EtherLoop modems • restricting external network access to the BitStorm Server web interface • secure password setting
EtherCraft module	EtherLoop modem diagnostics and performance monitoring tool for monitoring modem status and performance. EtherCraft can examine all modems or selected modems that have been provisioned.
SNMP	YesWare supports Simple Network Management Protocol (SNMP) through a third-party SNMP manager to remotely monitor and configure YesWare components.
Downloader module	The Download Utilities module is used to upgrade EtherLoop modem firmware.
Routine system maintenance and administration	YesWare has the following capabilities related to routine system maintenance and administration: • Creating and deleting users • System log generation and viewing • Installing and upgrading YesWare modules • Backing up and restoring the system database • Shutting down and restarting the BitStorm Server via web

Installing a YesWare VBN system

The process of installing a YesWare VBN system, in broad terms, includes the following:

1 Install the TCP/IP Ethernet local host LAN/WAN network to support the BitStorm Server connection (if none existing).

2 Install the YesWare VBN infrastructure (EtherLoop or Ethernet).

3 Configure the BitStorm Server on an existing local host LAN/WAN.

4 Provision the VBN infrastructure to support YesWare services.

5 Provision site-specific service billing requirements

6 Customize the host site and provision visitor services

This manual covers steps **3** through **6** of the YesWare system installation process.

Organization of this manual

This document provides procedures for setting up the BitStorm Server on the local host network and for provisioning the YesWare system, as well as for conducting on-going YesWare system operations and maintenance. In general, the information is presented in the order in which you will need to use it. The first part of this manual contains the instructions for using the YesWare operating system and modules, and for the initial setup of the YesWare system. The middle part of the document contains the procedures for provisioning site-specific settings and billing information.

YesWare software modules

This introduces the purpose and function of the YesWare software modules.

Chapter topic list

This chapter includes the following topics.

Topic	See
YesWare module operation and document conventions	page 2-2
Home	page 2-4
Provisioning Wizard	page 2-5
Billing	page 2-6
Switches and Ports	page 2-7
Servers and Proxies	page 2-8
Diagnostics	page 2-9
Logs	page 2-10
Help	page 2-11

YesWare module operation and document conventions

This section describes basic operation of the software and the conventions used in this document for describing the software operations. The remainder of this chapter describes the purpose and function of each of the YesWare modules.

YesWare module functions/operations/dialogs

YesWare modules are used to provision and manage the YesWare system. YesWare module pages are divided into "functions" that contain a variety of "operations" such as Create and Review. Software operations are executed through "dialogs."

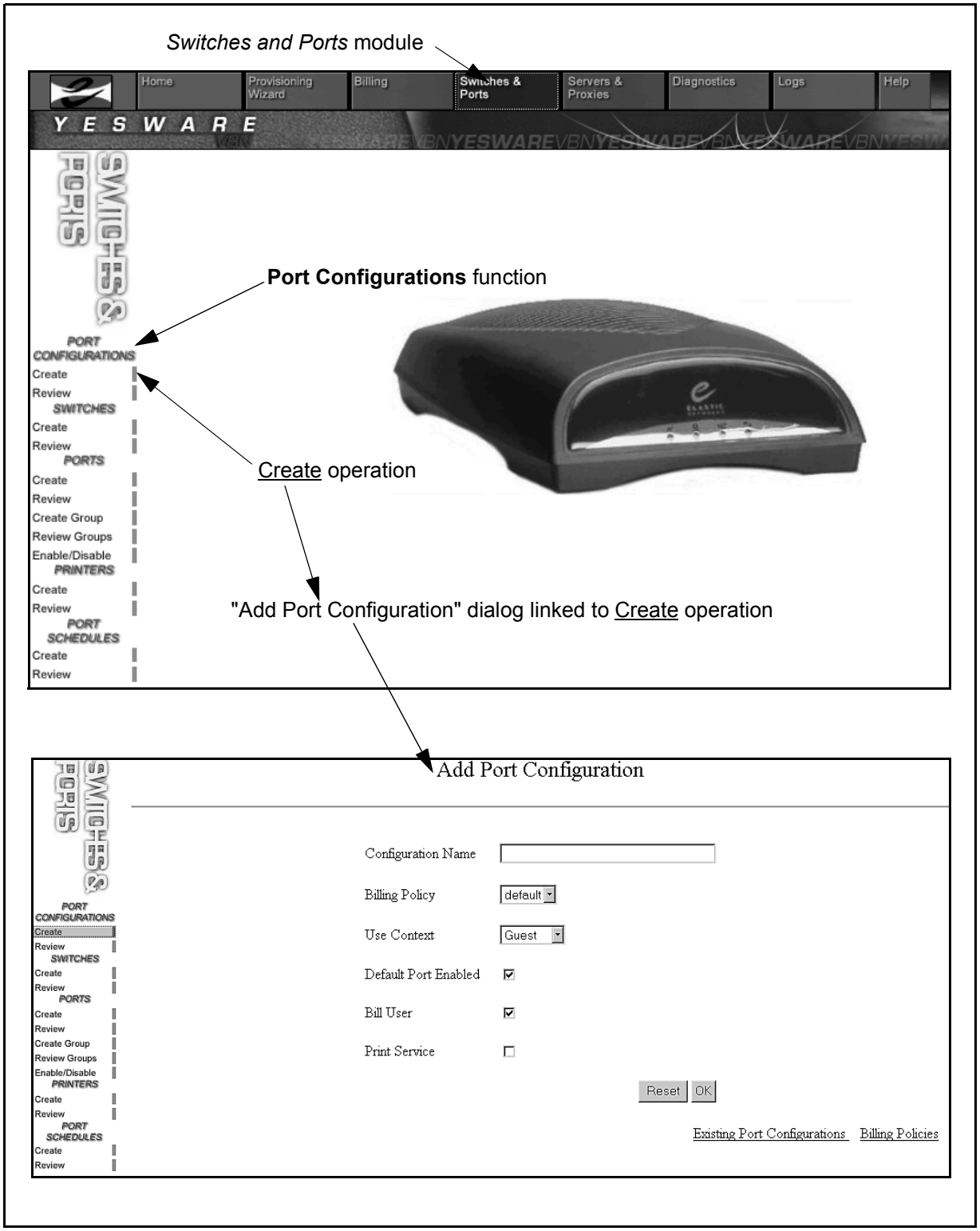
Figure 2-1 shows the module buttons on the YesWare main menu.

Figure 2-1
YesWare module buttons

Document conventions

In this document, YesWare module names are *italicized*, function names are **bolded**, operation link names are underlined, and dialog names are in "quotation marks." Figure 2-2 on page 2-3 shows the *Switches and Ports* module as an example.

Figure 2-2
***Servers and Proxies* module sections and functions**



Home

The *Home* module page contains the links to the four software groups that reside on the BitStorm Server.

Figure 2-3 shows the *Home* module page with the four software groups.

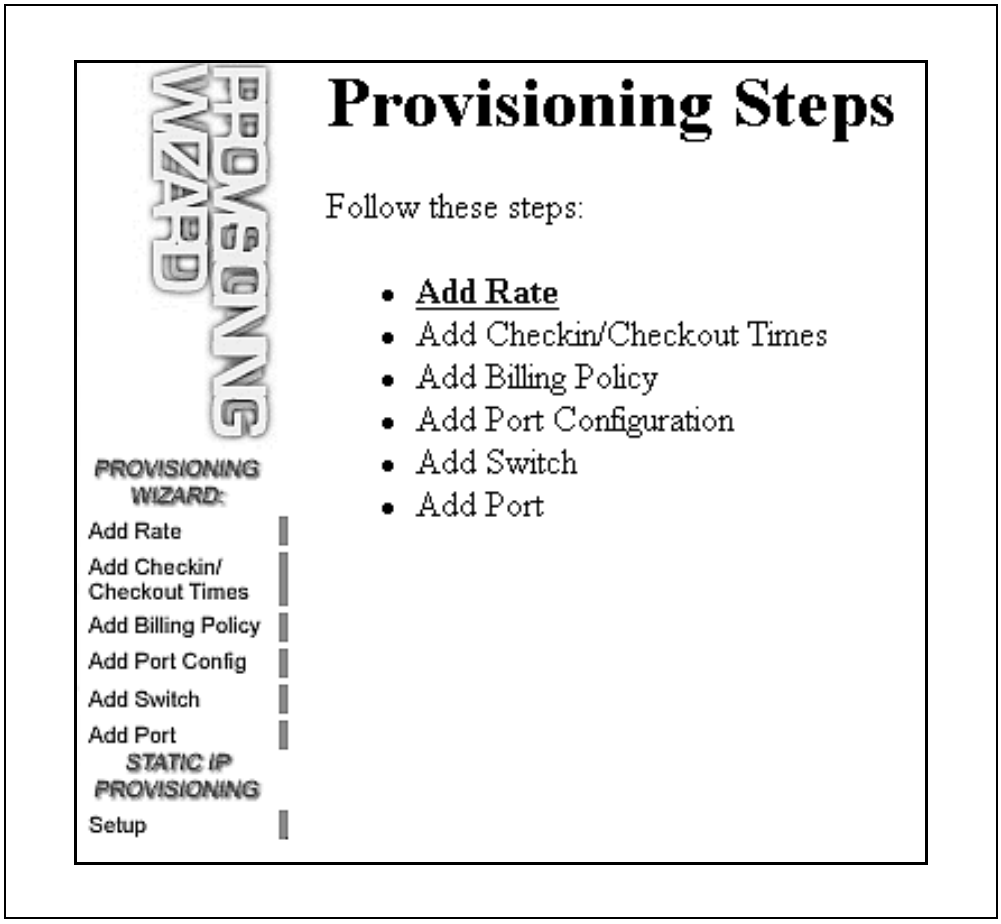
Figure 2-3
***Home* module page**

Provisioning Wizard

The *Provisioning Wizard* module takes the user step-by-step through the basic YesWare system provisioning tasks. The *Provisioning Wizard* module also contains the **Static IP Provisioning** function.

Figure 2-4 shows the *Provisioning Wizard* page.

Figure 2-4
***Provisioning Wizard* module page**

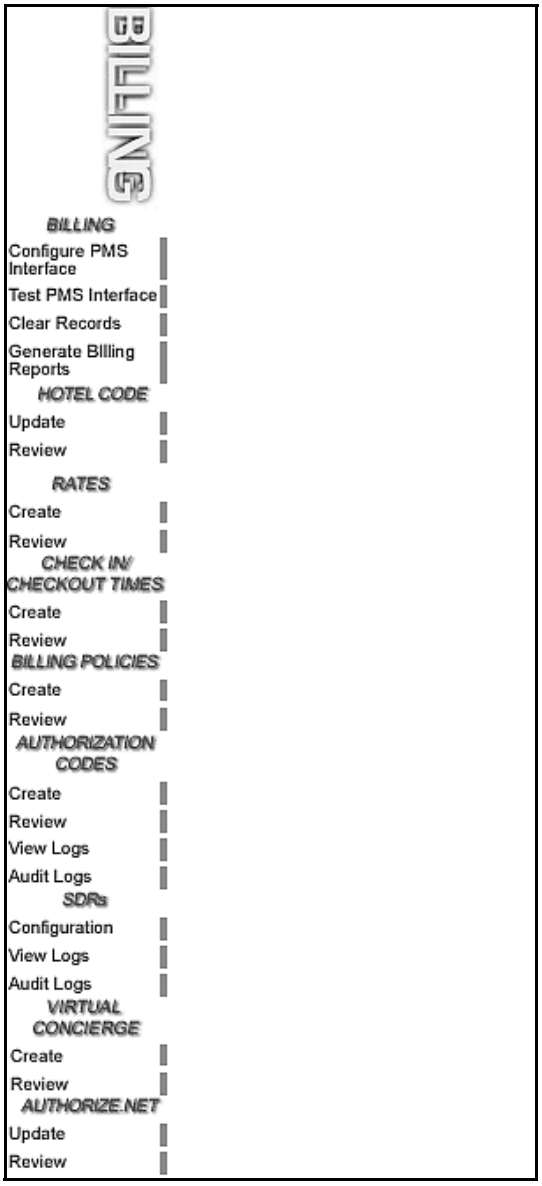


Billing

The *Billing* module is used to configure and maintain information used for billing of YesWare end-users, such as the billing system type, rate table, and user authorization codes. YesWare's *Billing* allows relatively easy integration with a hospitality Property Management System (PMS) and/or credit-card billing service, as well as generating, viewing and auditing the YesWare Service Detail Record (SDR) logs.

Figure 2-5 shows the *Billing* module page.

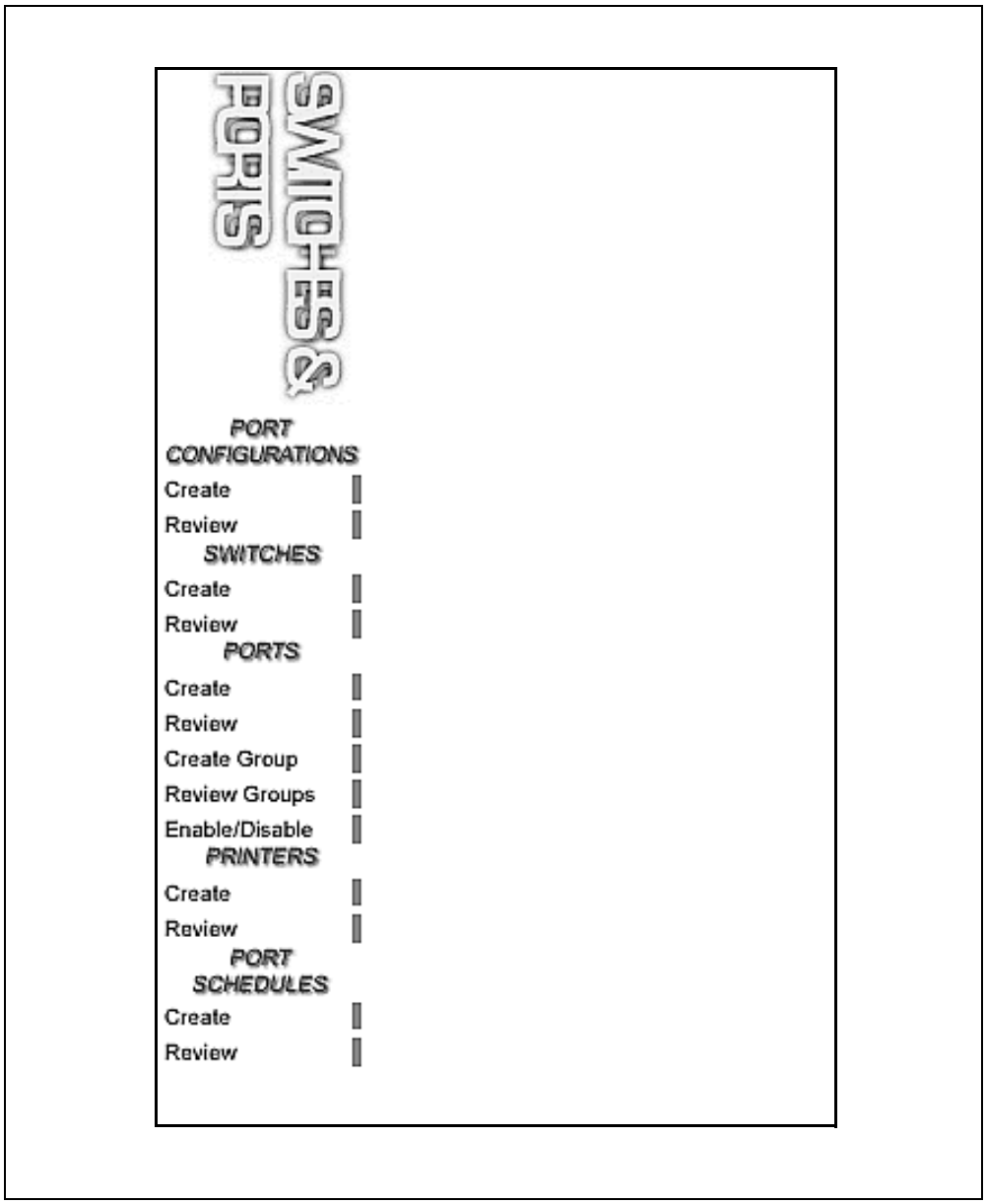
Figure 2-5
***Billing* module page**



Switches and Ports

The *Switches and Ports* module contains the functions to provision EtherLoop modems as well as Ethernet switches and their associated ports. Functions include the capability to create separate port configurations and groups, provision visitor printing services, and create port schedules.

Figure 2-6
***Switches and Ports* module page**

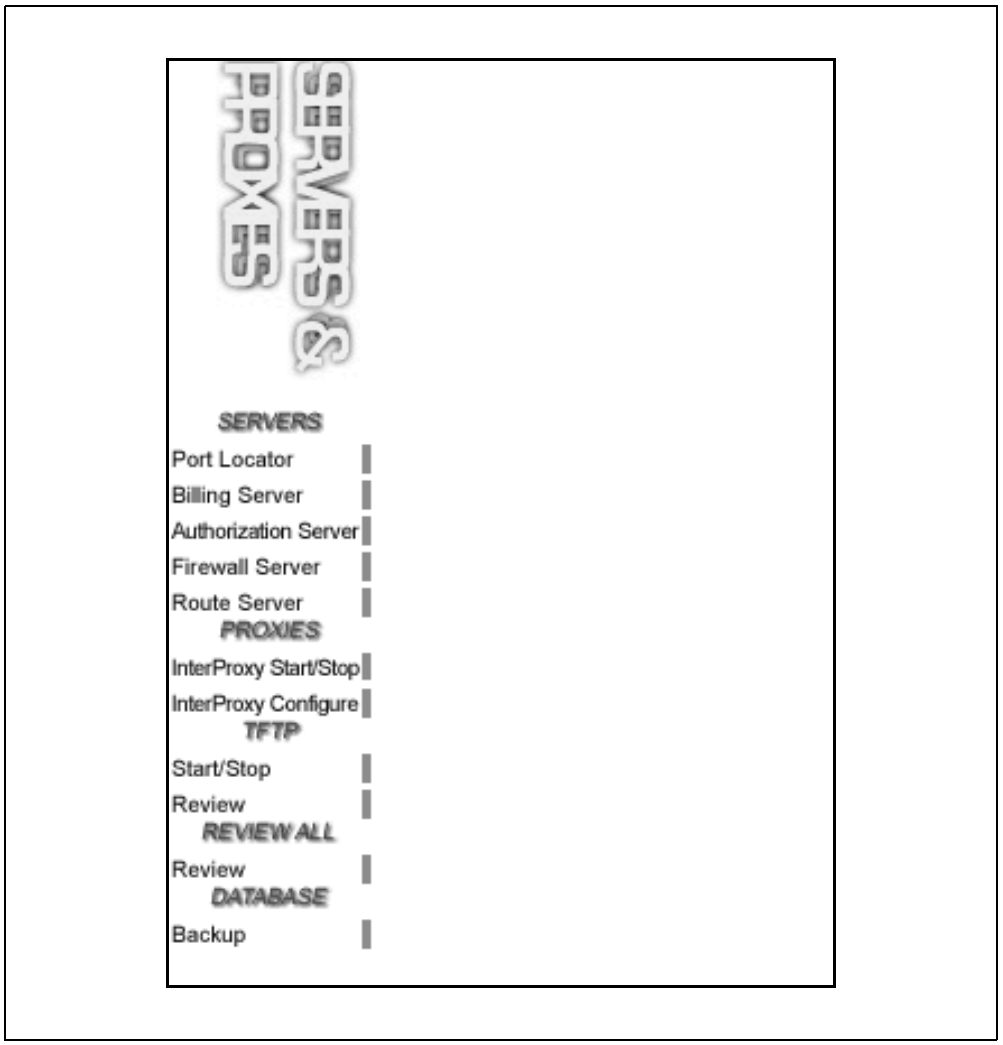


Servers and Proxies

The *Servers and Proxies* module is used to view the the Java Server Page (JSP) Server IDs and status, and to provision the InterProxy function. The *Servers and Proxies* module also contains functions to start and stop the Trivial File Transfer Protocol (TFTP) daemon, review all server and proxy status information, and backup the server/proxy databases.

Figure 2-7 shows the *Servers and Proxies* module page.

Figure 2-7
***Servers and Proxies* module page**

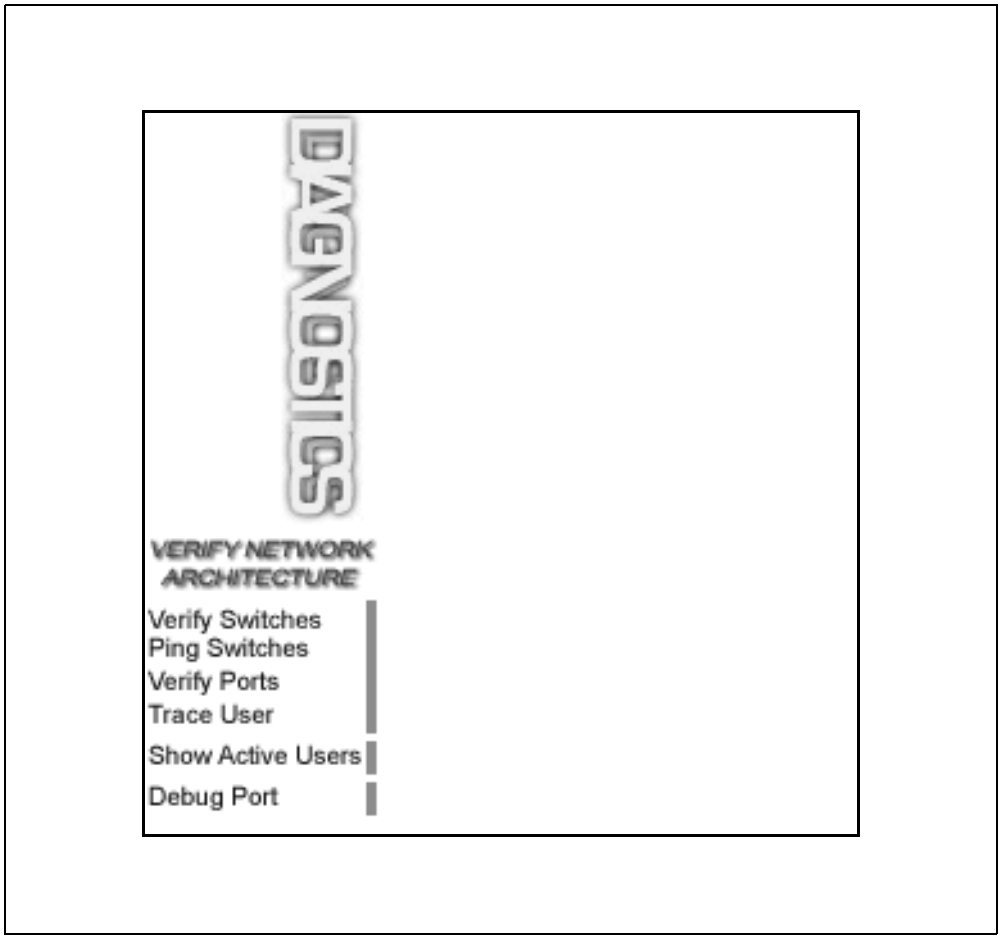


Diagnostics

The *Diagnostics* module is used to test and verify the switch and port provisioning, and to monitor system user IP addresses.

Figure 2-8 shows the *Diagnostics* module page.

Figure 2-8
***Diagnostics* module page**

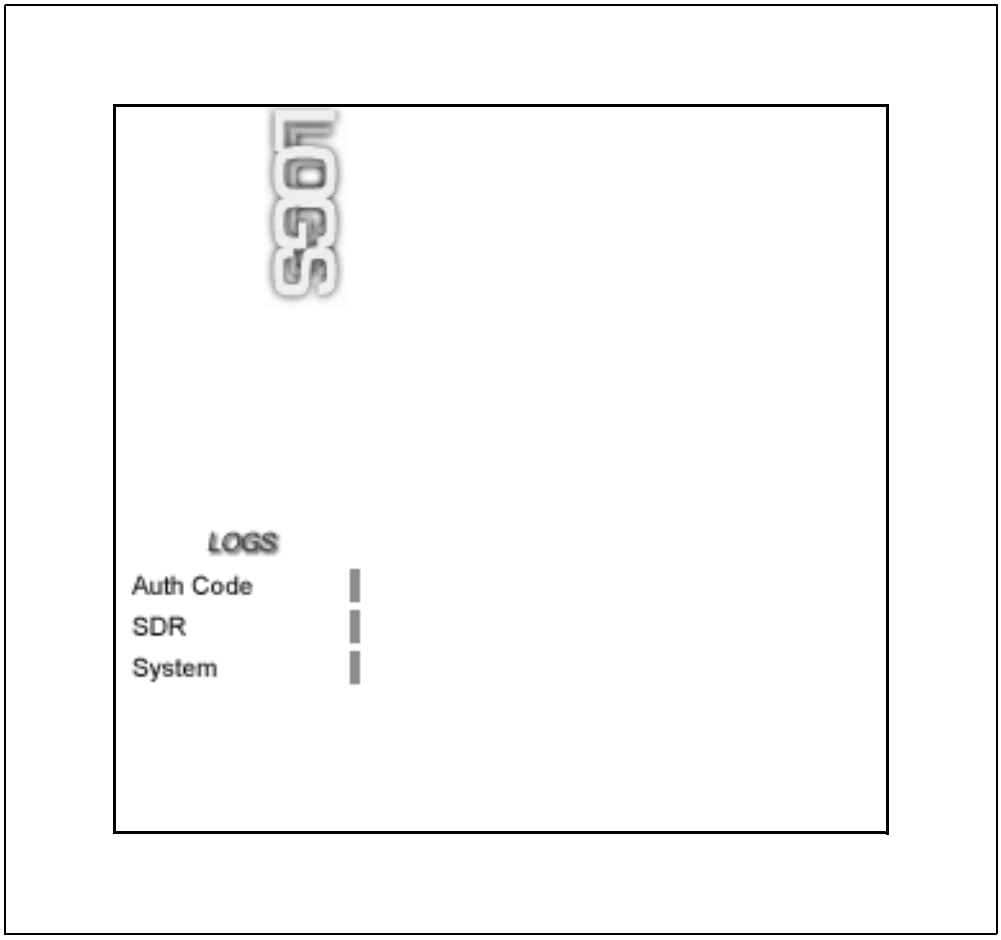


Logs

The *Logs* module is used to generate and retrieve logs, including logs of Authorization Code use, room billing (SDR), and system status.

Figure 2-8 shows the *Logs* module page.

Figure 2-9
***Logs* module page**

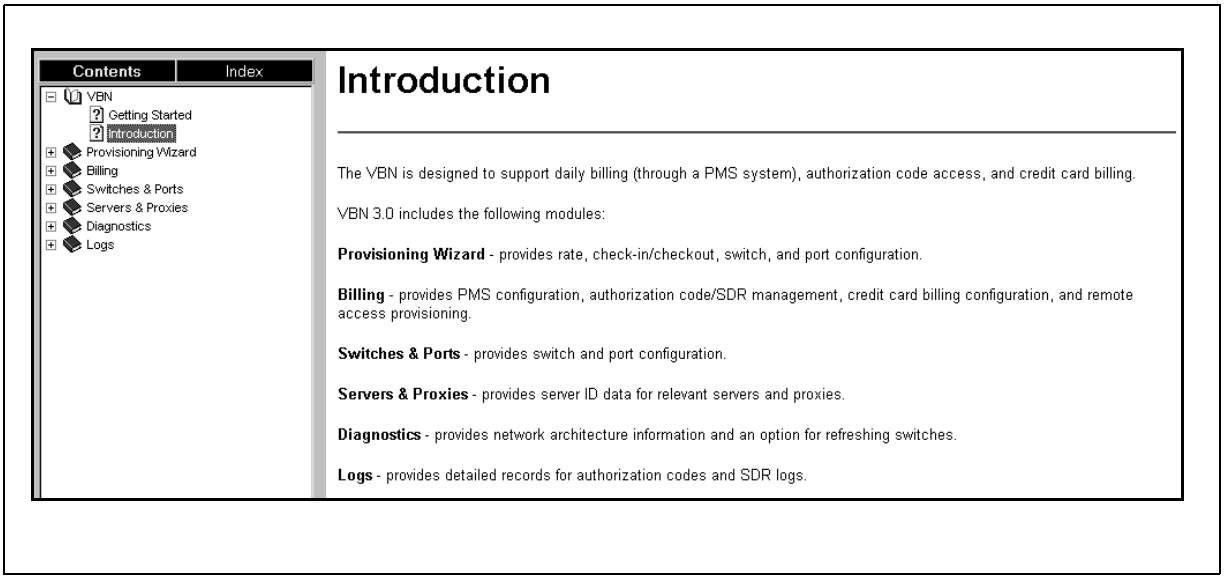


Help

The *Help* module contains information on all tasks required to provision YesWare services.

Figure 2-8 shows an example help topic on a *Help* module page.

Figure 2-10
***Help* module page**


Contents
Index
VBN
Getting Started
Introduction
Provisioning Wizard
Billing
Switches & Ports
Servers & Proxies
Diagnostics
Logs
Introduction
The VBN is designed to support daily billing (through a PMS system), authorization code access, and credit card billing.
VBN 3.0 includes the following modules:
Provisioning Wizard - provides rate, check-in/checkout, switch, and port configuration.
Billing - provides PMS configuration, authorization code/SDR management, credit card billing configuration, and remote access provisioning.
Switches & Ports - provides switch and port configuration.
Servers & Proxies - provides server ID data for relevant servers and proxies.
Diagnostics - provides network architecture information and an option for refreshing switches.
Logs - provides detailed records for authorization codes and SDR logs.

BitStorm Server host network configuration

This chapter describes the methods for connecting to the BitStorm Server and using the StormTracker Configuration Manager to configure the BitStorm Server on the host network.

Chapter topic list

This chapter includes the following topics.

Topic	See
BitStorm Server	page 3-2
BitStorm Server console connection methods	page 3-4
BitStorm Server interface: StormTracker Configuration Manager	page 3-7

Chapter task list

This section includes the following tasks.

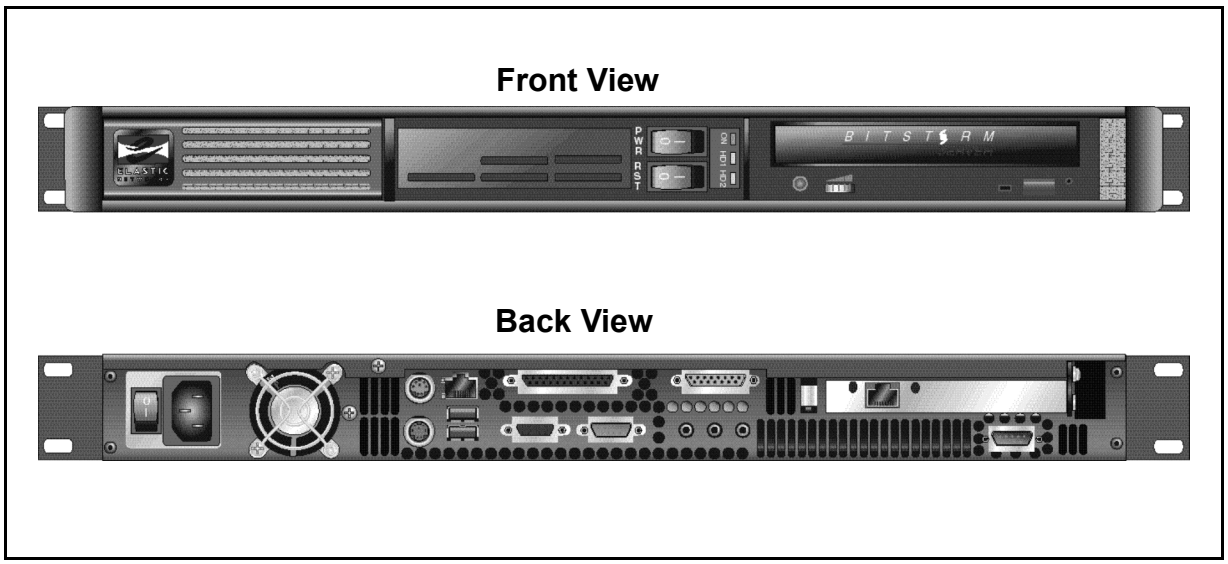
Procedure	Task	See
3-1	Configuring the BitStorm Server host network interface	page 3-10
3-2	Setting the BitStorm Server date and time	page 3-14
3-3	Setting the DNS nameserver(s) for the BitStorm Server	page 3-16

BitStorm Server

The BitStorm Server is used to provision and manage services to the YesWare system infrastructure and clients. The BitStorm Server resides as a standard "host" on a local TCP/IP Ethernet host network.

Figure 3-1 shows the BitStorm Server unit.

Figure 3-1
BitStorm Server unit



BitStorm Server functional components

The BitStorm Server unit has the following functional components:

- two Ethernet 10Base-T network interface cards (**ETH 0** and **ETH 1**)
- two RS-232 serial ports (COM1 and COM2)
- 110/120 V AC power connector
- monitor and keyboard connectors

BitStorm network and YesWare-VBN interfaces - ETH 0 and ETH 1

The two Ethernet 10/100 Base-T network interface cards (NICs) in the BitStorm Server (**ETH 0** and **ETH 1)** provide the connectivity for the YesWare-VBN to access the Internet through a host network. The **ETH 0** interface connects the BitStorm Server to the host network. The **ETH 1** interface connects visitors on YesWare's Visitor-Based Network (VBN) to the BitStorm Server for access to YesWare services.

Figure 3-2 on page 3-3 shows the component connections on the back of the BitStorm Server unit. Table 3-1 on page 3-3 describes the function of each component.

Figure 3-2
BitStorm Server connections

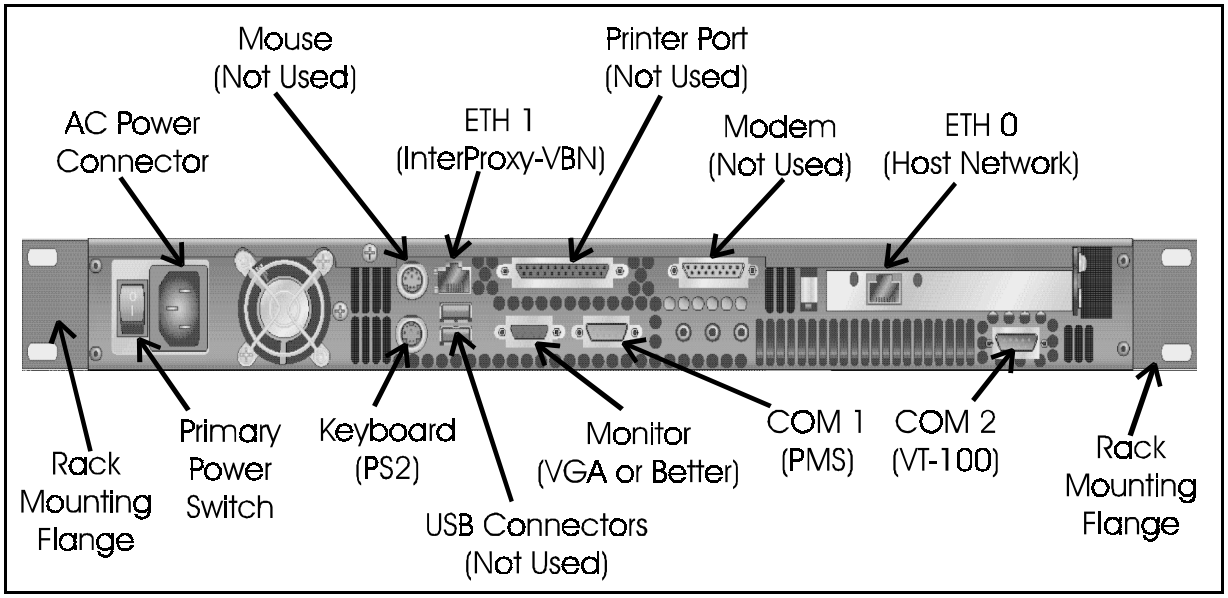


Table 3-1
BitStorm Server component connector functions

BitStorm Server Connector	Description/Function
Primary Power Switch	Controls power to unit. Secondary switch on front used as reset.
AC Power Connector	110/120 V AC input.
Keyboard	Standard PS2 keyboard interface.
USB Connector (not used)	Universal Serial Bus (USB) device interface.
COM 1	RS232 serial interface to Property Management System (PMS) or serial printer.
COM 2	RS232 serial interface for VT-100 terminal (or terminal emulator) used with BitStorm Server console interface.
Mouse (not used)	PS2 mouse interface.
Printer Port (not used)	Parallel printer interface.
Monitor	15-pin D-Sub monitor interface for VGA, SVGA or later model.
Modem (not used)	Analog modem connector
ETH 0	Ethernet 10/100Base-T interface to host network (LAN or WAN).
ETH 1	Ethernet 10/100Base-T interface to YesWare's InterProxy clients.

BitStorm Server console connection methods

The BitStorm Server "console" consists of connectors located on the back of the BitStorm Server used to access the StormTracker Configuration Manager. You can connect to the BitStorm Server console using any one of the following methods:

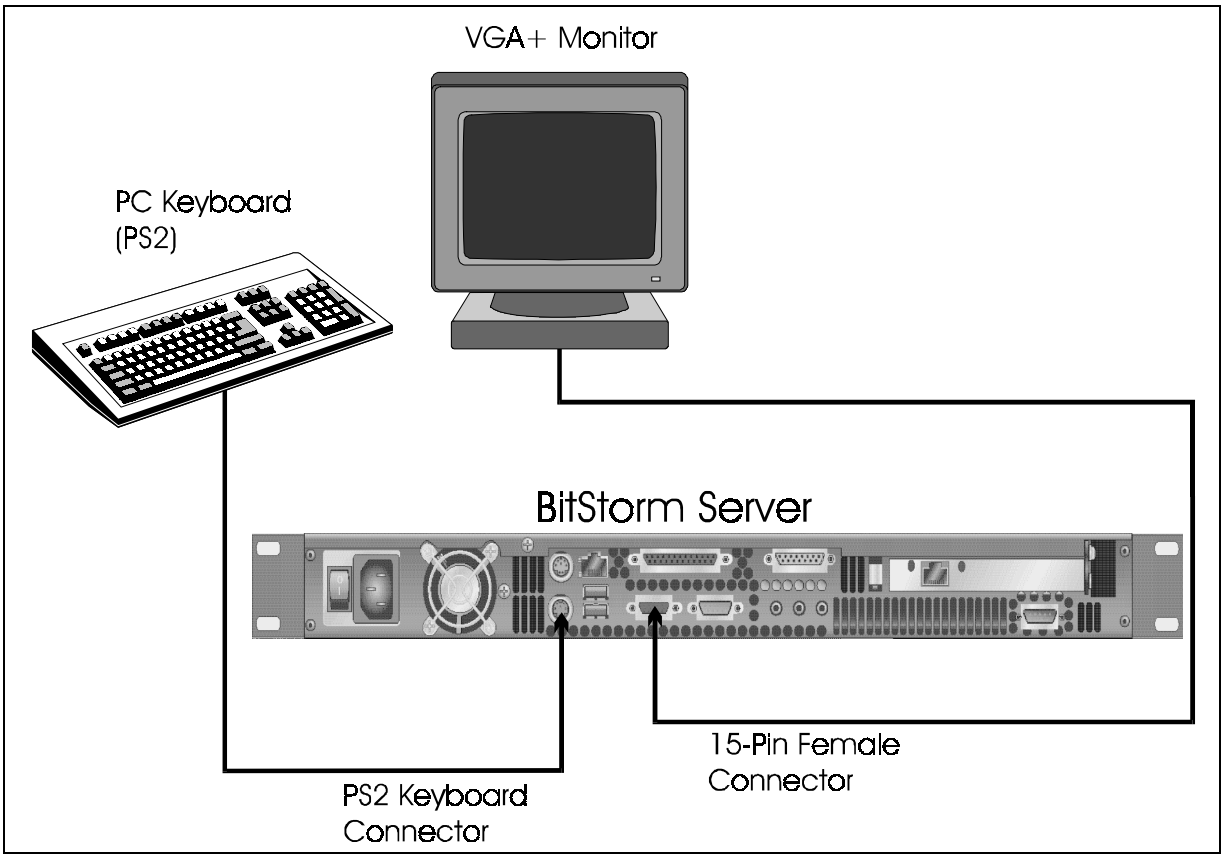
- keyboard (PS2) and monitor (VGA or better)
- VT-100 terminal emulation program on a PC with a serial communications port and a null-modem cable
- VT-100 terminal with a null-modem cable
- telnet from a PC to the BitStorm Server **ETH 0** interface

The following sections illustrate these BitStorm Server console connection methods.

BitStorm Server keyboard/monitor connections

Figure 3-3 shows the method for connecting a keyboard/monitor combination to the BitStorm Server.

Figure 3-3
BitStorm Server keyboard/monitor connections



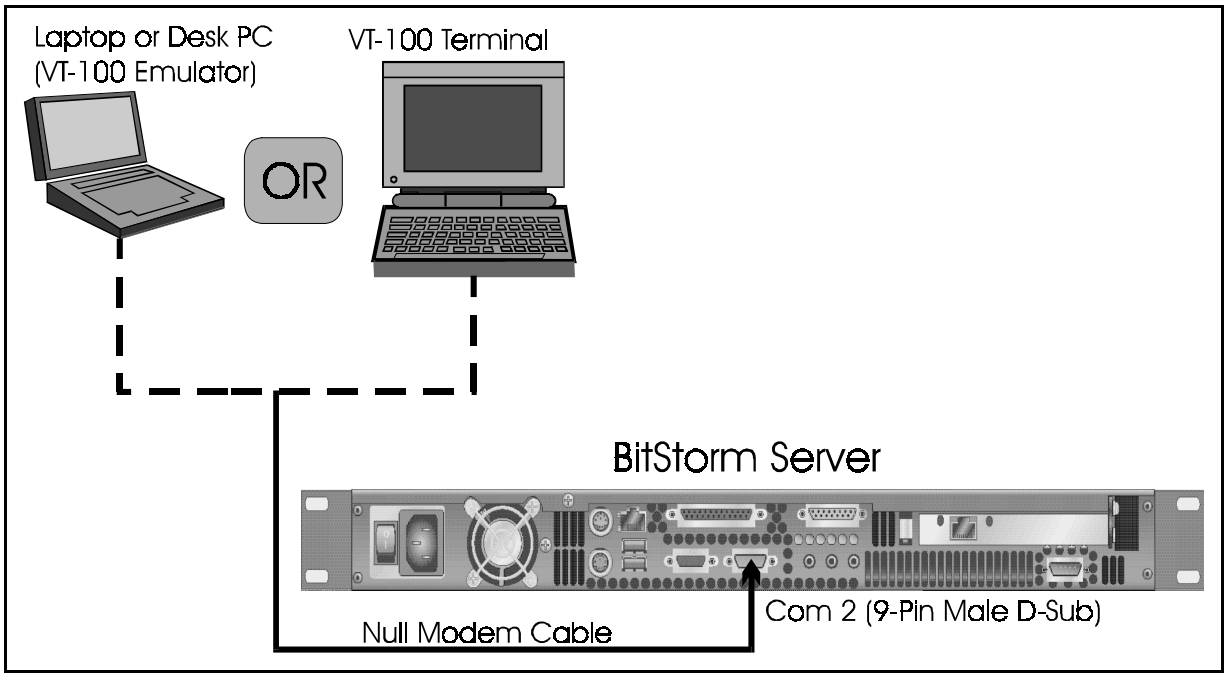
BitStorm Server PC/VT-100 connection

Figure 3-4 shows the method for connecting a PC with a VT-100 terminal emulator or a VT-100 terminal to the BitStorm Server serial port (COM 2). Table 3-2 lists the COM 2 VT-100 terminal communication settings.

Table 3-2
COM 2 VT100 terminal communication settings

Setting	Value
Baud Rate	9600
Start Bits	8
Parity	None
Stop Bits	1

Figure 3-4
BitStorm Server PC or VT-100 terminal console connection

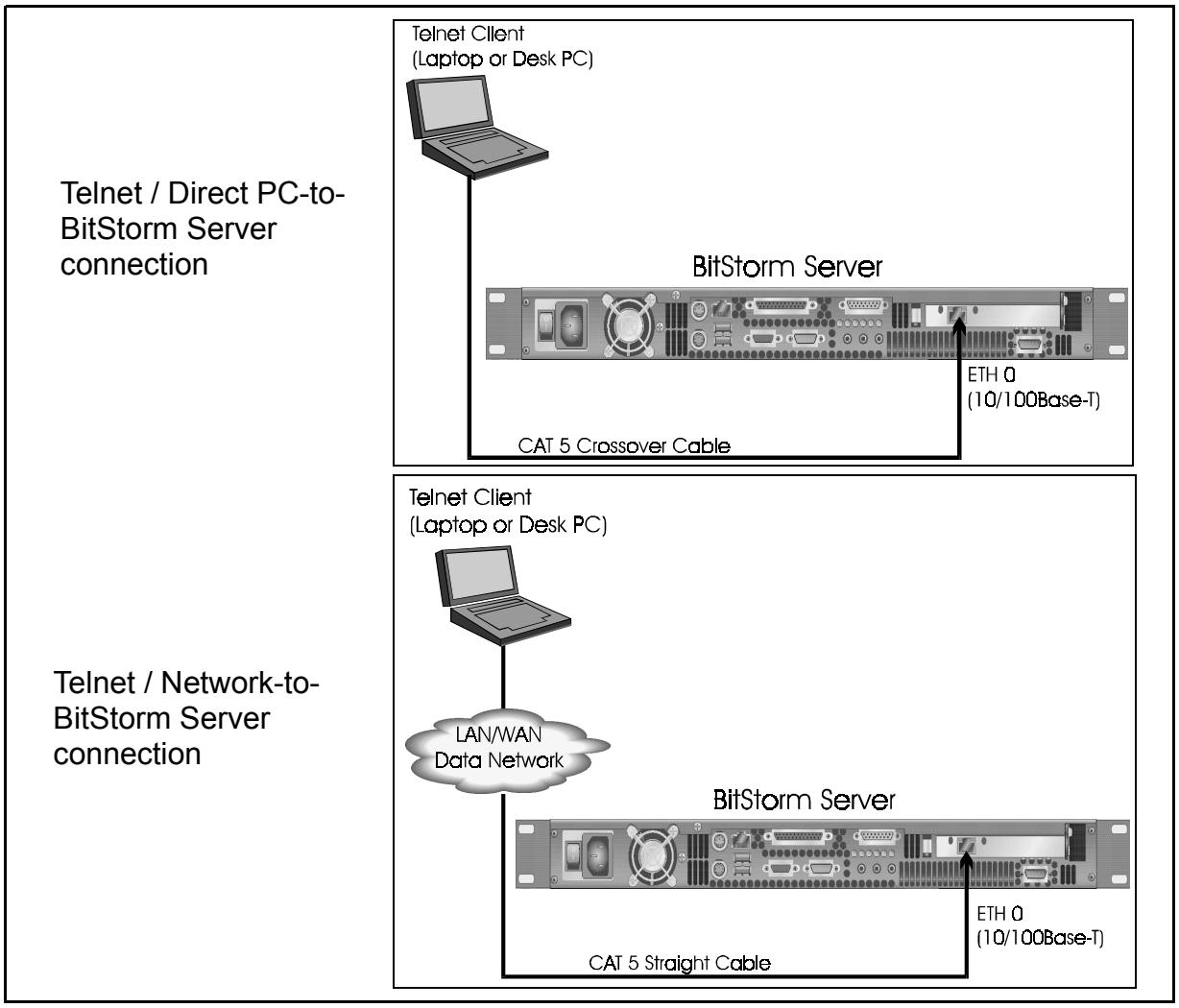


BitStorm Server telnet connection

For the initial configuration of the BitStorm Server, you can telnet to the StormTracker Configuration Manager by connecting directly to the **ETH 0** interface using a Category 5 cross-over cable. You can also telnet to the StormTracker Configuration Manager over an existing network connection to the **ETH 0** interface to change configuration settings. Figure 3-5 on page 3-6 shows the methods for connecting to the StormTracker Configuration Manager over telnet.

> ***CAUTION - Possible network conflict***
> The BitStorm Server ETH 0 interface has a default TCP/IP address configuration which could conflict with the host network. DO NOT connect the ETH 0 interface to a host network until you have re-configured the ETH 0 interface with a TCP/IP configuration that is valid for the host network.

Figure 3-5
BitStorm Server telnet connections



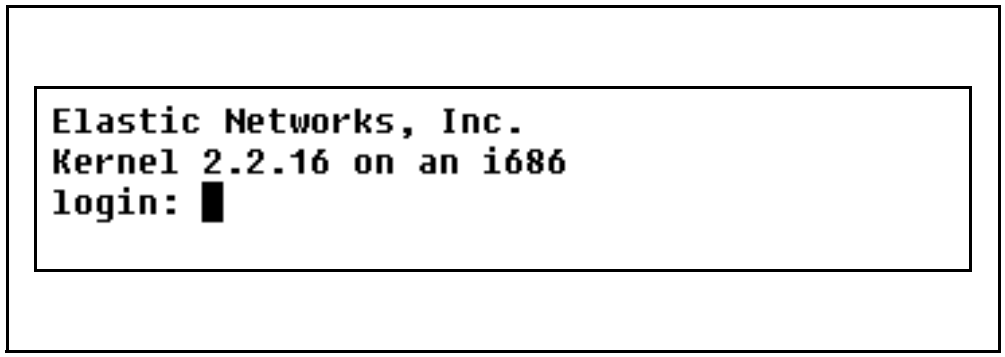
BitStorm Server interface: StormTracker Configuration Manager

The BitStorm Server console interface is called the StormTracker Configuration Manager, a command-based interface used to configure the BitStorm Server on the host network. The StormTracker Configuration Manager can also be used to conduct low-level system diagnostics such as "ping" tests and to view route-table and **ETH 0/ETH 1** port assignments.

StormTracker Configuration Manager login default

Figure 3-6 shows the "login" prompt of the StormTracker Configuration Manager. The default login name is **admin** and the password is **etherloop** (case-sensitive).

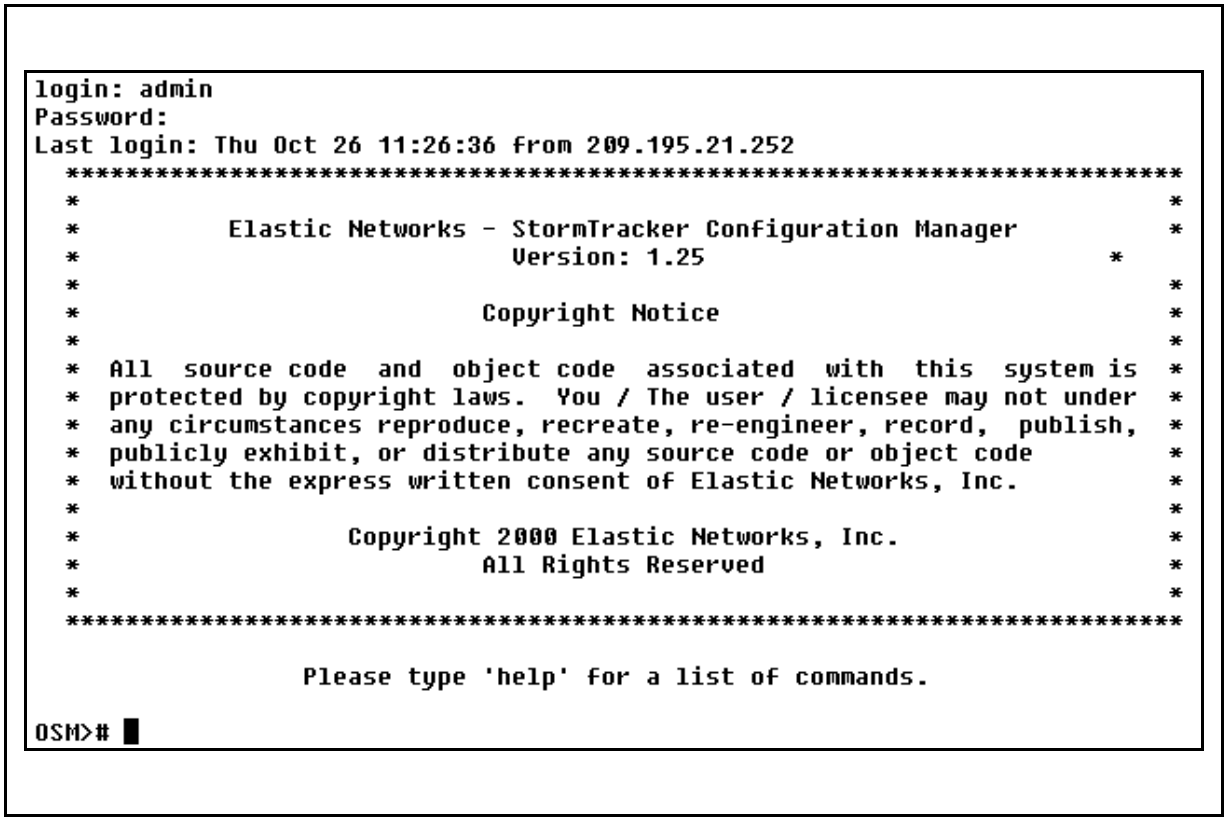
Figure 3-6
StormTracker Configuration Manager login prompt



StormTracker Configuration Manager welcome screen and prompt

Figure 3-7 shows the"Welcome" screen and **OSM>#** prompt you should see after entering the login name and password. Table 3-3 on page 3-9 lists and defines the commands available in the StormTracker Configuration Manager. Procedure 3-1 on page 3-10 describes the procedure for using the StormTracker Configuration Manager to configure BitStorm Server on the host network.

Figure 3-7
StormTracker Configuration Manager Welcome screen and command prompt


login: admin
Password:
Last login: Thu Oct 26 11:26:36 from 209.195.21.252
Elastic Networks - StormTracker Configuration Manager
Version: 1.25
Copyright Notice
All source code and object code associated with this system is protected by copyright laws. You / The user / licensee may not under any circumstances reproduce, recreate, re-engineer, record, publish, publicly exhibit, or distribute any source code or object code without the express written consent of Elastic Networks, Inc.
Copyright 2000 Elastic Networks, Inc.
All Rights Reserved
Please type 'help' for a list of commands.
OSM>#

StormTracker Configuration Manager commands

Table 3-3 lists the StormTracker Configuration Manager commands used to configure the BitStorm Server.

Table 3-3
StormTracker Configuration Manager commands

Command	Function	Syntax
help	Displays this list of commands.	help
route	Display BitStorm Server routing table.	route
port	Display BitStorm Server ETH 0 and ETH 1 port settings.	port
ping	Test basic communications between the BitStorm Server, client computers, and the host network.	ping [IP address or DNS name]
passwd	Change admin user password. For security purposes, use this command to change the default password after the first login.	passwd
configure	Configure the **ETH 0** interface network IP address, gateway, BitStorm Server host name (see nameserver command below), and time zone.	configure See Procedure 3-1 on page 3-10.
nameserver (optional)	Specify the IP address of the nameserver the BitStorm Server will use.	nameserver (displays current nameserver settings) nameserver [front/last/del] (adds or deletes nameservers)
date	Display and set system date and time	date
reboot	Shut down and re-start the BitStorm Server. Always use this command or the Web interface to re-boot the BitStorm Server. Never use only the power switch for a re-boot, as an uncontrolled shutdown/re-start could corrupt the StormTracker Configuration Manager software.	reboot
shutdown	Shut down the BitStorm Server. Always use this command or the Web interface to shut down the BitStorm Server. Never use only the BitStorm Server power switch for a shutdown.	shutdown
exit	Close the StormTracker Configuration Manager and exit to the login prompt. To prevent unauthorized access to the BitStorm Server, always use this command after configuration tasks are done.	exit
timezone	Change the time zone used by the BitStorm Server.	timezone

Procedure 3-1
Configuring the BitStorm Server host network interface

This procedure explains how to configure the BitStorm Server host network interface (**ETH 0**) using the StormTracker Configuration Manager.

Requirements

To perform this procedure, you need the following:

- valid TCP/IP configuration for the BitStorm Server **ETH 0** network interface, including the following:
  - IP address
  - network mask (subnet) address
  - network gateway address
- host name for the BitStorm Server
- DNS nameserver IP address
- time zone information for the BitStorm Server host network

Action

Step	Action
1	Connect to the YesWare console using one of the methods described in “BitStorm Server console connection methods” on page 3-4.

2	Connect the BitStorm Server power plug to an appropriate power source, and flip the power switch ON.
	After the BitStorm Server completes its power-on initialization sequence, the YesWare login prompt should appear as follows:
	`Elastic Networks, Inc.`
	`Kernel 2.2.16 on an i686`
	`login:`

3	Enter the BitStorm Server login name and password.

—continued—

Procedure 3-1 (continued)
Configuring the BitStorm Server host network interface

Step	Action

The StormTracker Configuration Manager "welcome" screen and command prompt appear as shown in Figure 3-8.

Figure 3-8
StormTracker Configuration Manager "welcome" screen

```
login: admin
Password:
Last login: Thu Oct 26 11:26:36 from 209.195.21.252
  ********************************************************************************
  *                                                                              *
  *          Elastic Networks - StormTracker Configuration Manager               *
  *                             Version: 1.25                                    *
  *                                                                              *
  *                           Copyright Notice                                   *
  *                                                                              *
  *  All  source code  and  object code  associated  with  this  system is       *
  *  protected by copyright laws.  You / The user / licensee may not under       *
  *  any circumstances reproduce, recreate, re-engineer, record,  publish,       *
  *  publicly exhibit, or distribute any source code or object code              *
  *  without the express written consent of Elastic Networks, Inc.               *
  *                                                                              *
  *                  Copyright 2000 Elastic Networks, Inc.                       *
  *                           All Rights Reserved                                *
  *                                                                              *
  ********************************************************************************

                Please type 'help' for a list of commands.

OSM>#
```

4 At the command prompt (OSM#>), type configure and press <ENTER>. The system displays the following:

```
OSM># configure

Configuring eth0...

OSM> Please enter IP Address:
```

5 Enter the valid host network IP address assigned to the BitStorm Server ETH 0 network interface. The system should appear similar to the following:

```
OSM># configure

Configuring eth0...

OSM> Please enter IP Address: 172.17.10.253
OSM> Please enter Network Mask:
```

—continued—

Procedure 3-1 (continued)
Configuring the BitStorm Server host network interface

Step	Action

6 Enter the valid network mask (subnet) address assigned to the BitStorm Server ETH 0 network interface. The system should appear similar to the following:

```
OSM># configure

Configuring eth0...

OSM> Please enter IP Address: 172.17.10.253
OSM> Please enter Network Mask: 255.255.255.0
OSM> Please enter gateway IP address (q to quit):
```

7 Enter the valid gateway IP address assigned to the BitStorm Server ETH 0 network interface. The system should appear similar to the following:

```
OSM># configure

Configuring eth0...

OSM> Please enter IP Address: 172.17.10.253
OSM> Please enter Network Mask: 255.255.255.0
OSM> Please enter gateway IP address (q to quit): 172.17.10.1
OSM> Please enter hostname:
```

8 Enter the host name assigned to the BitStorm Server ETH 0 network interface. If the BitStorm Server will use the Domain Name System (DNS), the BitStorm Server must have a valid DNS host name. The system should appear similar to the following:

```
OSM># configure

Configuring eth0...

OSM> Please enter IP Address: 172.17.10.253
OSM> Please enter Network Mask: 255.255.255.0
OSM> Please enter gateway IP address (q to quit): 172.17.10.1
OSM> Please enter hostname: DocTrain330.elastic.com
Please select the corresponding number for your timezone:
   1 - Alaska
   2 - Aleutian
   3 - Arizona
   4 - Central
   5 - East-Indiana
   6 - Eastern
   7 - Hawaii
   8 - Indiana-Starke
   9 - Michigan
   10 - Mountain
   11 - Pacific
   12 - Samoa
   13 - relative to GMT
```

—continued—

Procedure 3-1 (continued)
Configuring the BitStorm Server host network interface

Step	Action
9	Select the time zone from the list in which the BitStorm Server resides, and enter the corresponding number. The system should appear similar to the following:

```
Please select the corresponding number for your timezone:
   1 - Alaska
   2 - Aleutian
   3 - Arizona
   4 - Central
   5 - East-Indiana
   6 - Eastern
   7 - Hawaii
   8 - Indiana-Starke
   9 - Michigan
   10 - Mountain
   11 - Pacific
   12 - Samoa
   13 - relative to GMT
6

You specified the following settings:
IP Address:     172.17.10.253
NetMask:        255.255.255.0
Gateway:        172.17.10.1
Hostname:       DocTrain330.elastic.com
Domain name:    elastic.com
Time zone:      US/Eastern
OSM>
Do you want to commit these settings? (y/n)
```

10 If the configuration settings are correct, type y and press <ENTER>.

Go to Procedure 3-2 on page 3-14 to set the system date and time, and Procedure 3-3 on page 3-16 to configure the DNS nameserver.

You have completed this task.

Procedure 3-2
Setting the BitStorm Server date and time

This procedure explains how to use the StormTracker Configuration Manager **date** command to set the date and time for the BitStorm Server.

Requirements

To perform this procedure, you need the following:

- a connection to the BitStorm Server **ETH 0** network interface using one of the methods described in "BitStorm Server console connection methods" on page 3-4. host name for the BitStorm Server

Action

Step	Action
1	Login to the BitStorm Server (the steps for logging into the BitStorm Server are presented in Procedure 3-1 on page 3-10).
2	At the command prompt (OSM#>), type date and press <ENTER>. The system should appear similar to the following:

```
OSM>#  date

Current system date & local time:

Fri Mar 31 11:24:42 EST 2000

OSM> Would you like to reset the system date & time? (y/n)
```

3	Type y and press <ENTER>. The system should appear similar to the following:

```
OSM>#  date

Current system date & local time:

Fri Mar 31 11:24:42 EST 2000

OSM> Would you like to reset the system date & time? (y/n)
y

Enter date and time (MM/DD/YYYY HH:MM[AM/PM]):
```

—continued—

Procedure 3-2 (continued)
Setting the BitStorm Server date and time

Step	Action
4	Enter the system date and local time. The system should appear similar to the following:

```
OSM># date

Current system date & local time:

Fri Mar 31 11:24:42 EST 2000

OSM> Would you like to reset the system date & time? (y/n)
y

Enter date and time (MM/DD/YYYY HH:MM[AM/PM]):
03/31/2000 11:27AM

Current system date & local time:

Fri Mar 31 11:27:01 EST 2000

OSM># _
```

You have completed this task.

Procedure 3-3
Setting the DNS nameserver(s) for the BitStorm Server

Use this procedure to identify the DNS nameserver used by the BitStorm Server. The StormTracker Configuration Manager **nameserver** command can be used to display, add or delete the IP address(es) of the DNS nameserver(s) supporting the BitStorm Server. Nameserver addresses can be added to the beginning or the end of the nameserver list. This procedure describes each of these command capabilities.

Requirements

To perform this procedure, you need the following:

- a connection to the BitStorm Server **ETH 0** network interface using one of the methods described in "BitStorm Server console connection methods" on page 3-4. host name for the BitStorm Server
- a valid DNS nameserver IP address

> ***Valid host and domain name required***
> The BitStorm Server must also have a valid DNS host/domain name (host.domain.domain) defined using the StormTracker Configuration Manager **configure** command. See Procedure 3-1 on page 3-10.

Action

Step	Action
1	Login to the BitStorm Server (the steps for logging into the BitStorm Server are presented in Procedure 3-1 on page 3-10).
2	To display the existing nameserver addresses, type nameserver at the command prompt (OSM#>), and press <ENTER>. The system should appear similar to the following:

```
nameserver 192.168.2.1

Possible arguments to nameserver command:
  front - adds IP address to front of search list
  last  - adds IP address to end of search list
  del   - deletes IP address from list
OSM>#
```

—continued—

Procedure 3-3 (continued)
Setting the DNS nameserver(s) for the BitStorm Server

Step	Action

3 To add a nameserver to the beginning of the list of existing nameserver addresses, type nameserver front at the command prompt (OSM#>), and press <ENTER>. The system should appear similar to the following:

```
OSM>#  nameserver front
OSM>  Please enter IP Address: 192.168.2.2

nameserver 192.168.2.2
nameserver 192.168.2.1
```

4 To add a nameserver to the end of the list of existing nameserver addresses, type nameserver last at the command prompt (OSM#>), and press <ENTER>. The system should appear similar to the following:

```
OSM>#  nameserver last
OSM>  Please enter IP Address: 192.168.2.3

nameserver 192.168.2.2
nameserver 192.168.2.1
nameserver 192.168.2.3
```

5 To remove a nameserver from the list of existing nameserver addresses, type nameserver del at the command prompt (OSM#>), and press <ENTER>. The system should appear similar to the following:

```
OSM>#  nameserver del
OSM>  Please enter IP Address: 192.168.2.2

nameserver 192.168.2.1
nameserver 192.168.2.3

OSM>#  _
```

You have completed this task.

Setting up the YesWare-VBN network configuration

This chapter describes the procedures to prepare and verify the settings in the other BitStorm Server software (**Administration** and **StormTracker-Site Manager**) to support YesWare-VBN service.

Chapter task list

This chapter includes the following tasks.

Procedure	Task	See
4-1	Using the BitStorm Server and YesWare modules for the first time	page 4-2
4-3	Verifying the server network connection	page 4-6
4-4	Detecting EtherLoop modems	page 4-7

Procedure 4-1
Using the BitStorm Server and YesWare modules for the first time

This procedure contains the requirements and steps involved in using YesWare for the first time.

Requirements

This section describes the requirements for accessing the YesWare web interface.

Connecting to the ETH 0 interface

To access the YesWare web interface, you must have access to the network where the BitStorm Server **ETH 0** interface resides. This can be done with a PC connected over a network, internetwork, simple passive hub, or through a direct connection to the BitStorm Server **ETH 0** interface. See Chapter 3 for more information.

> ***Direct PC connection to ETH 0***
> To connect a PC directly to the **ETH 0** interface, a Category 5 Ethernet **crossover** cable must be used and the PC must be configured as a TCP/IP node on the same LAN and subnet as the **ETH 0** interface.

Browsing to the ETH 0 URL

All YesWare modules are web-based, and are launched by browsing to the IP address configured for the BitStorm Server **ETH 0** network interface. Before using the YesWare modules described in this manual, you must know the IP address configured for the **ETH 0** interface.

> ***BitStorm Server default-configured ETH 0 IP address***
> To access the BitStorm Server, use the IP address configured using the console interface (see Chapter 3) or the default-configured **ETH 0** address.
>
> The BitStorm Server is configured before shipping with the following **ETH 0** IP address: **192.168.1.2**

Finding an unknown ETH 0 IP address configuration

If the IP configuration set for **ETH 0** is unknown, login to the StormTracker Configuration Manager and use the **port** command to display the **ETH 0** settings (**ETH 1** values are also displayed). See Chapter 3 for a description of the **port** command.

Note: The VT-100 may need to be adjusted to increase the window size ("buffer" setting) in order to see all the port data.

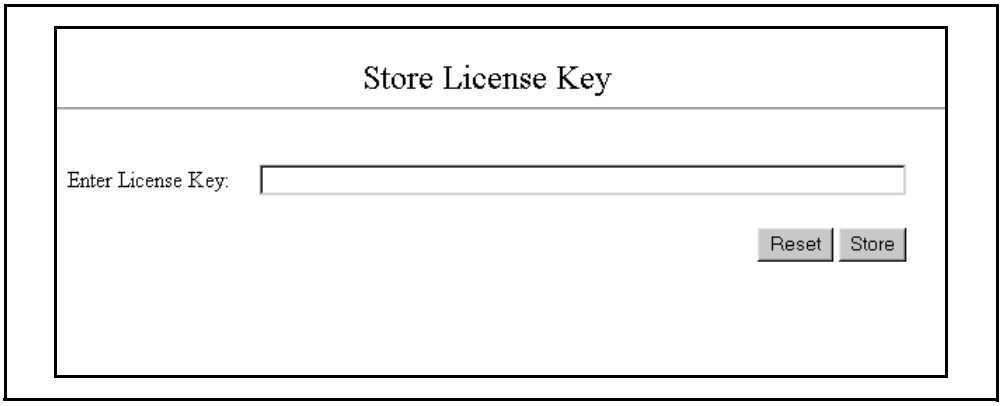
—continued—

Procedure 4-1 (continued)
Using the BitStorm Server and YesWare modules for the first time

Action

Step	Action
1	Launch the PC web browser (Internet Explorer or Netscape Navigator).
2	Specify the **ETH 0** Universal Resource Locator (URL), ***Note:*** The URL must include the ETH 0 IP address followed by the "yesware/jsp/" directory, as in the following example (for a BitStorm Server at ETH 0 IP address 10.255.254.2): **10.255.254.2/YesWare/jsp/** The "YesWare" in the URL is case-sensitive (Y/W, not y/w). Also, if the "/YesWare/jsp/" is not included in the **ETH 0** URL, the system will return a denial of access. If the **ETH 0** URL is entered correctly, the BitStorm Server *Home* page appears.
3	Click the **Administration** link to launch the the licensing agreement page.
4	Read the licensing agreement and click the "Accept" button. The "Store License Key" dialog appears as shown in **Figure 4-1**.

Figure 4-1
Store License Key dialog



5	Enter the 20-digit license key shipped with the server and click the "Store" button.

—continued—

Procedure 4-1 (continued)
Using the BitStorm Server and YesWare modules for the first time

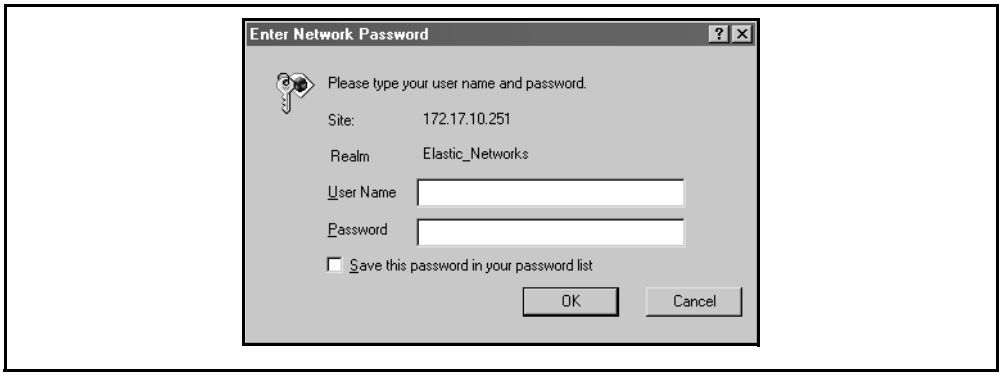
Step	Action

At this point, you have access to the **Administration** and **StormTracker-Site Manager** software groups. If you close your browser and later try to return to the **Administration** or **StormTracker-Site Manager** software groups, a login dialog appears as shown in :

Web interface login user name and password default

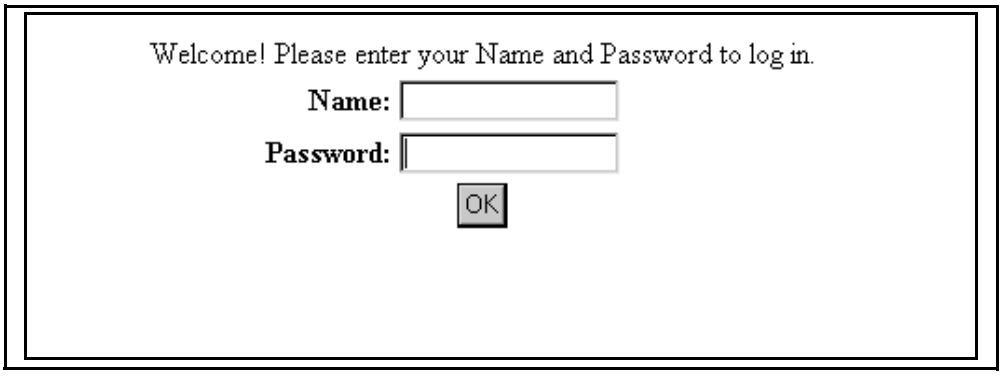
The default-configured user name/password login for all BitStorm Server software groups is **manager**/**manager**.

Figure 4-2
Administration and StormTracker-Site Manager Login dialog
6



7 To access the YesWare group, click the *Home* module button and select the **YesWare** link on the Home page. The YesWare login dialog appears as shown in Figure 4-3.

Figure 4-3
YesWare Login dialog



STOP

You have completed this task.

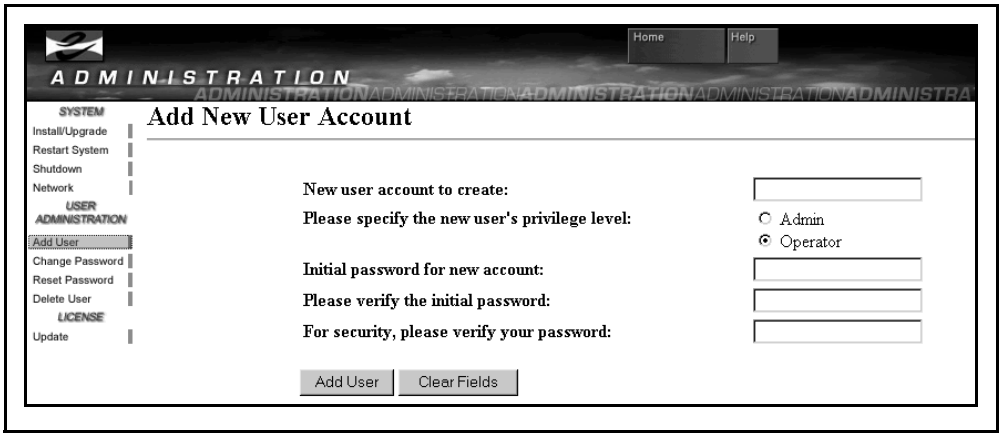
Procedure 4-2
Setting up system users and passwords

Use this procedure to create users and change/add passwords for the system.

Action

Step	Action
1	Using a PC web browser, browse to the IP address configured for the **ETH 0** interface, and login to the **Administration** software group.
2	Use the operations in the **User Administration** function add users and change passwords as required by your system. Figure 4-5 shows an example of the "Add New User Account" dialog. ***Note:*** Use the Change Password operation to change the manager/manager login/password immediately after the first use of the system. The Reset Password operation is used to change the passwords of other users in the system.

Figure 4-4
Add New User Account dialog



3 Record the user account information according to local office procedures.

STOP

You have completed this task.

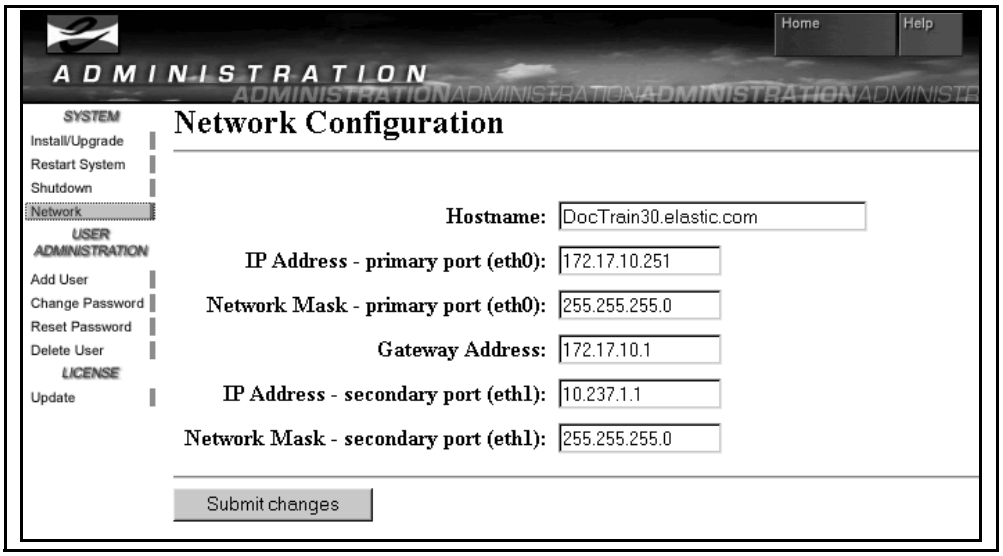
Procedure 4-3
Verifying the server network connection

Use this procedure to verify the **ETH 0** and **ETH 1** network settings to serve a VBN system.

Action

Step	Action
1	Using a PC web browser, browse to the IP address configured for the **ETH 0** interface, and login to the **Administration** software group.
2	Select the Network operation from the **System** function to launch the "Network Configuration" dialog. Figure 4-5 shows an example of this dialog.

Figure 4-5
Network Configuration dialog



3	Verify the **ETH 0** network settings and modify the **ETH 1** settings as necessary. ***Note:*** Only modify the **ETH 0** settings if instructed to do so by the LAN administrator.
4	Record the values in the "Network Configuration" dialog according to local office procedures. These values will be needed for some of the provisioning tasks performed later.

STOP

You have completed this task.

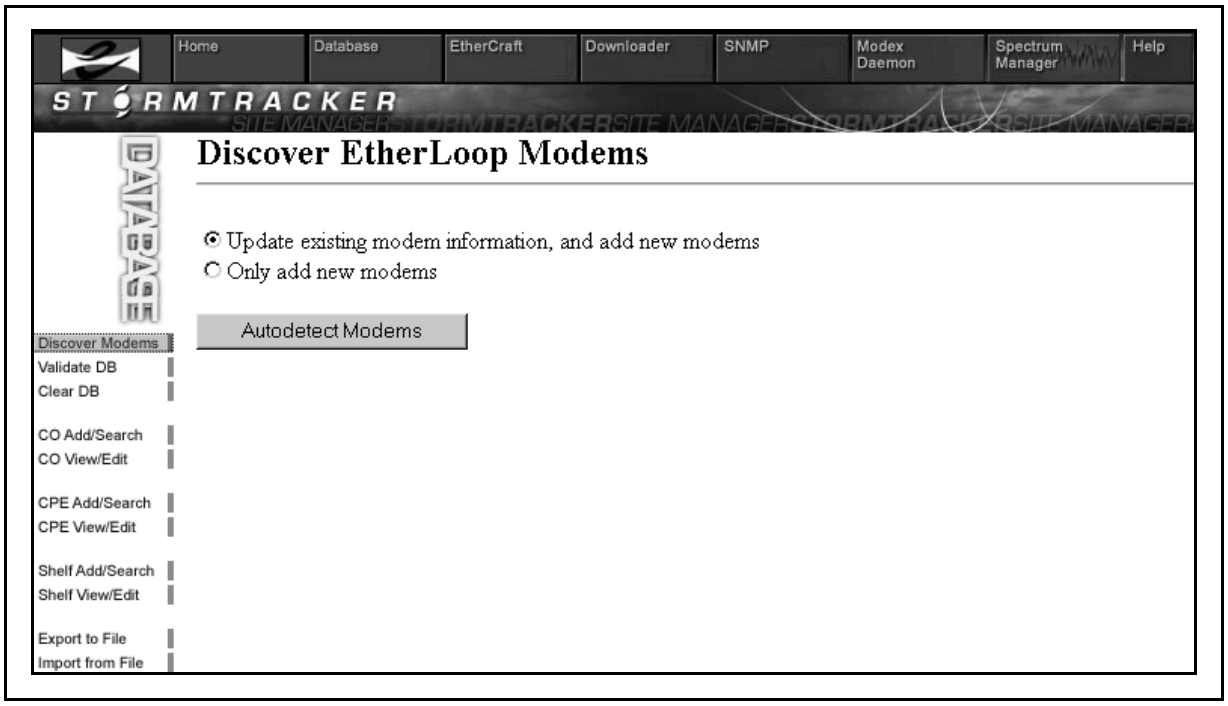
Procedure 4-4
Detecting EtherLoop modems

Use this procedure to any EtherLoop modems installed on the system. This procedure must be done before provisioning EtherLoop CO modems as switches.

Action

Step	Action
1	Using a PC web browser, browse to the IP address configured for the **ETH 0** interface, and login to the **StormTracker-Site Manager** software group.
2	Select the Discover Modems operation from the *Database* module to launch the "Discover EtherLoop Modems" dialog as shown in Figure 4-6.

Figure 4-6
Discover EtherLoop Modems dialog

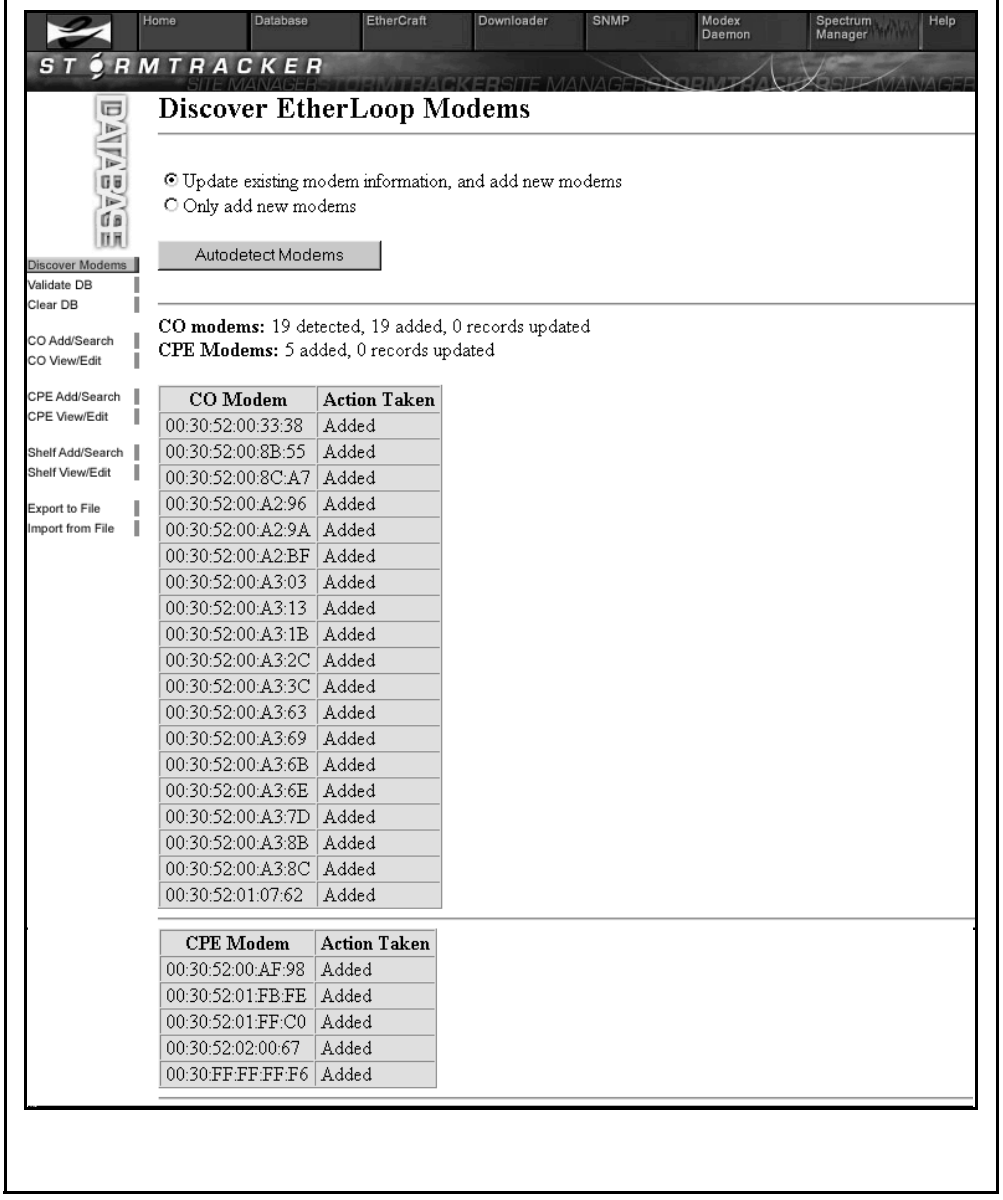


3	Select the desired option (detect new modems and update modem information, or only detect new modems).
4	Click the "AutoDettect Modems" button. Figure 4-7 on page 4-8 shows an example of the completed operation.

—continued—

Procedure 4-4 (continued)\
Detecting EtherLoop modems

Figure 4-7
EtherLoop Modems detected



CO Modem	Action Taken
00:30:52:00:33:38	Added
00:30:52:00:8B:55	Added
00:30:52:00:8C:A7	Added
00:30:52:00:A2:96	Added
00:30:52:00:A2:9A	Added
00:30:52:00:A2:BF	Added
00:30:52:00:A3:03	Added
00:30:52:00:A3:13	Added
00:30:52:00:A3:1B	Added
00:30:52:00:A3:2C	Added
00:30:52:00:A3:3C	Added
00:30:52:00:A3:63	Added
00:30:52:00:A3:69	Added
00:30:52:00:A3:6B	Added
00:30:52:00:A3:6E	Added
00:30:52:00:A3:7D	Added
00:30:52:00:A3:8B	Added
00:30:52:00:A3:8C	Added
00:30:52:01:07:62	Added

CPE Modem	Action Taken
00:30:52:00:AF:98	Added
00:30:52:01:FB:FE	Added
00:30:52:01:FF:C0	Added
00:30:52:02:00:67	Added
00:30:FF:FF:FF:F6	Added

STOP

You have completed this task.

Using the Provisioning Wizard

This chapter presents procedure for using the *Provisioning Wizard* module to configure basic services for a Visitor-Based Network (VBN).

Chapter Topic

This chapter includes the following topic.

Topic	See
Provisioning Wizard module functions	page 5-2
Provisioning Wizard	page 5-3
Static IP Provisioning	page 5-10

Chapter task list

This chapter includes the following tasks.

Procedure	Task	See
5-1	Setting up a VBN using the Provisioning Wizard module	page 5-4

Provisioning Wizard module functions

The *Provisioning Wizard* module contains the **Provisioning Wizard** and **Static IP Provisioning** functions. Table 5-1 summarizes the purpose of these functions in the *Provisioning Wizard* module. The following sections describe each function and its operations in more detail.

Table 5-1
Servers and Proxies module functions

Function name	Function purpose
Provisioning Wizard	This function contains all the operations to set up a basic VBN system.
Static IP Provisioning	This function contains the operation to configure and setup static IP addresses for purchase and use by YesWare visitors.

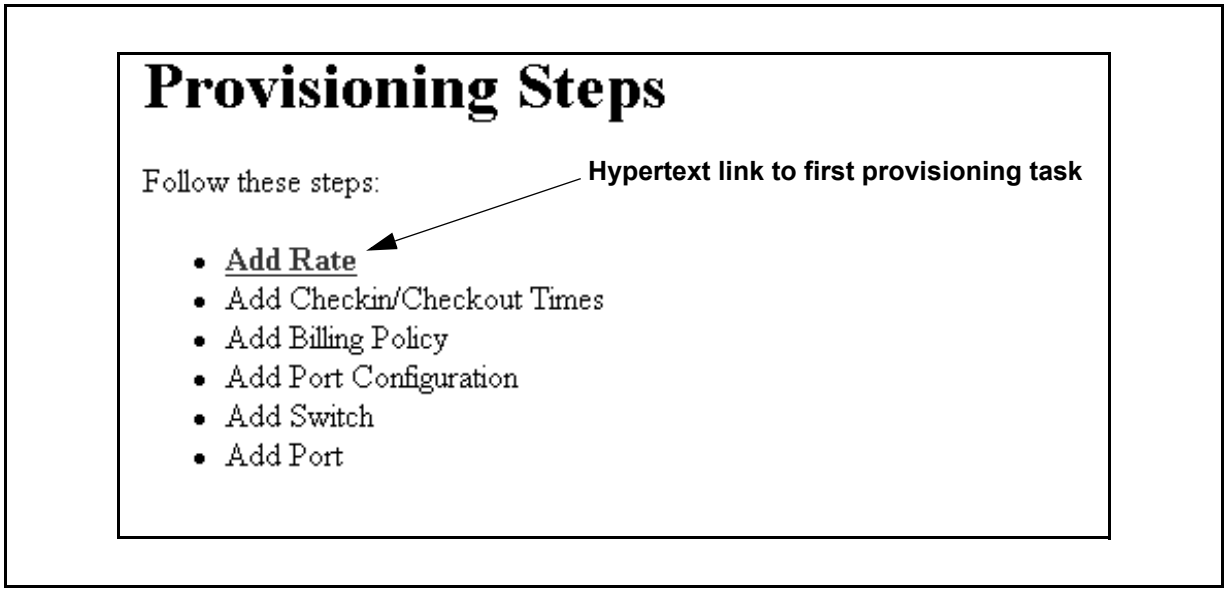
Provisioning Wizard

The operations in the **Provisioning Wizard** function are duplicates taken from the other YesWare modules (Billing, Switches and Ports, etc.). Using the hypertext links in the body of the dialog, the **Provisioning Wizard** function takes the user through the entire VBN provisioning process. These same tasks can be done separately using the links on the left browser window panel of the *Provisioning Wizard* module, or using the "home" module of the task.

> ***Note:*** This document contains chapters devoted to each module in YesWare (except for the *Home* and *Help* modules). For more information about any task in the **Provisioning Wizard** function, see the chapter associated with the "home" module.

Figure 5-1 shows the main **Provisioning Wizard** function page. Procedure 5-1 on page 5-4 describes the steps to use the **Provisioning Wizard** function to set up a basic VBN system.

Figure 5-1
Provisioning Wizard function dialog



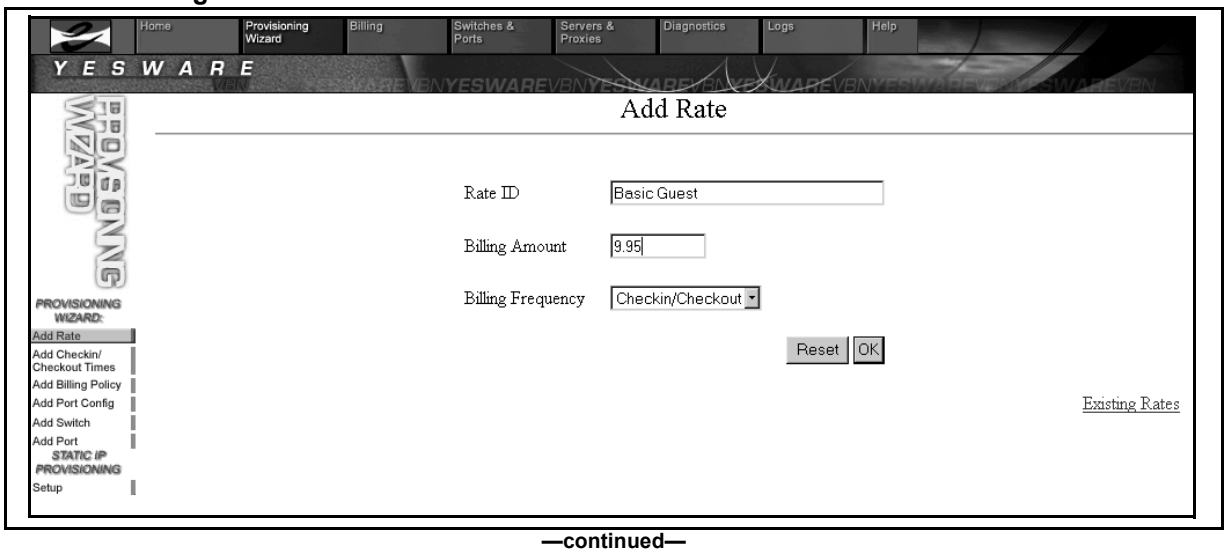
Procedure 5-1
Setting up a VBN using the Provisioning Wizard module

This procedure contains the requirements and steps involved in using the Provisioning Wizard to set up a VBN.

Action

Step	Action
1	Launch the PC web browser (Internet Explorer or Netscape Navigator).
2	Specify the **ETH 0** Universal Resource Locator (URL), ***Note:*** The URL must include the ETH 0 IP address followed by the "YesWare/jsp/" directory, as in the following example (for a YWS at ETH 0 IP address 10.255.254.2): **10.255.254.2/YesWare/jsp/** The "YesWare" in the URL is case-sensitive (Y/W, not y/w). If the "/YesWare/jsp/" is not included in the **ETH 0** URL, the system will return a denial of access. If the **ETH 0** URL is entered correctly, the BitStorm Server *Home* page appears.
3	Click the **YesWare**-**VBN** link and login to the YesWare interface. The system will open to the Provisioning Wizard module.
4	Click the Add Rate link or button to launch the "Add Rate" dialog.
5	Complete the required entries and click the Figure 5-2 shows an example of a properly completed dialog.

Figure 5-2
Add Rate dialog

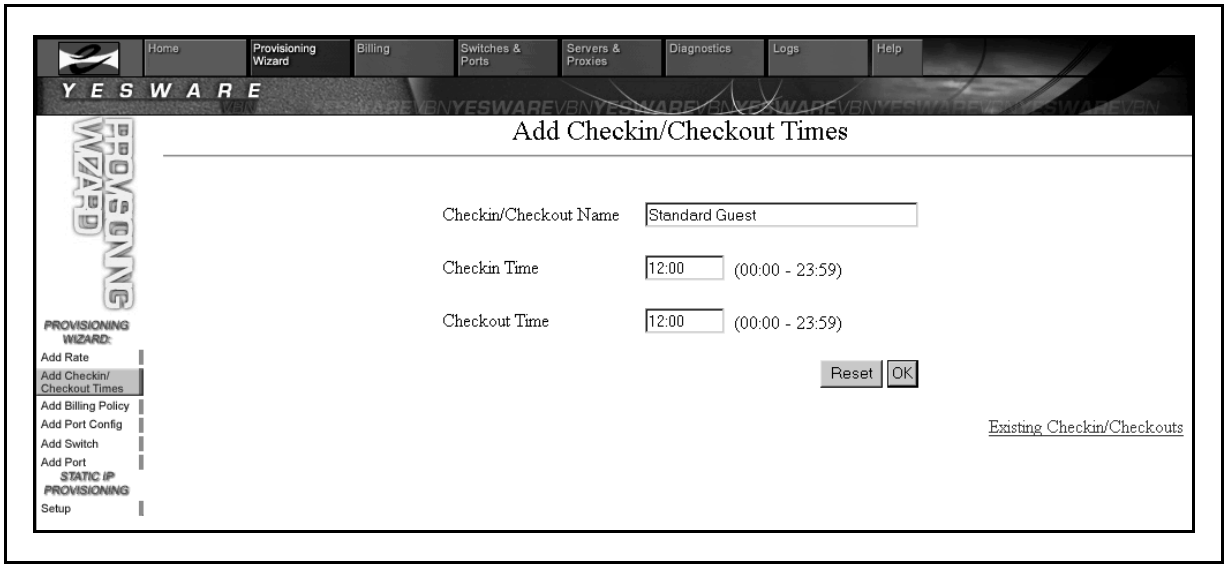


—continued—

Procedure 5-1 (continued)
Setting up a VBN using the Provisioning Wizard module

Step	Action
6	Click the Add Checkin/Checkout Times link or button to launch the "Add Checkin/Checkout Times" dialog.
7	Complete the required entries and click the Figure 5-3 shows an example of a properly completed dialog.

Figure 5-3
Add Checkin/Checkout Times dialog

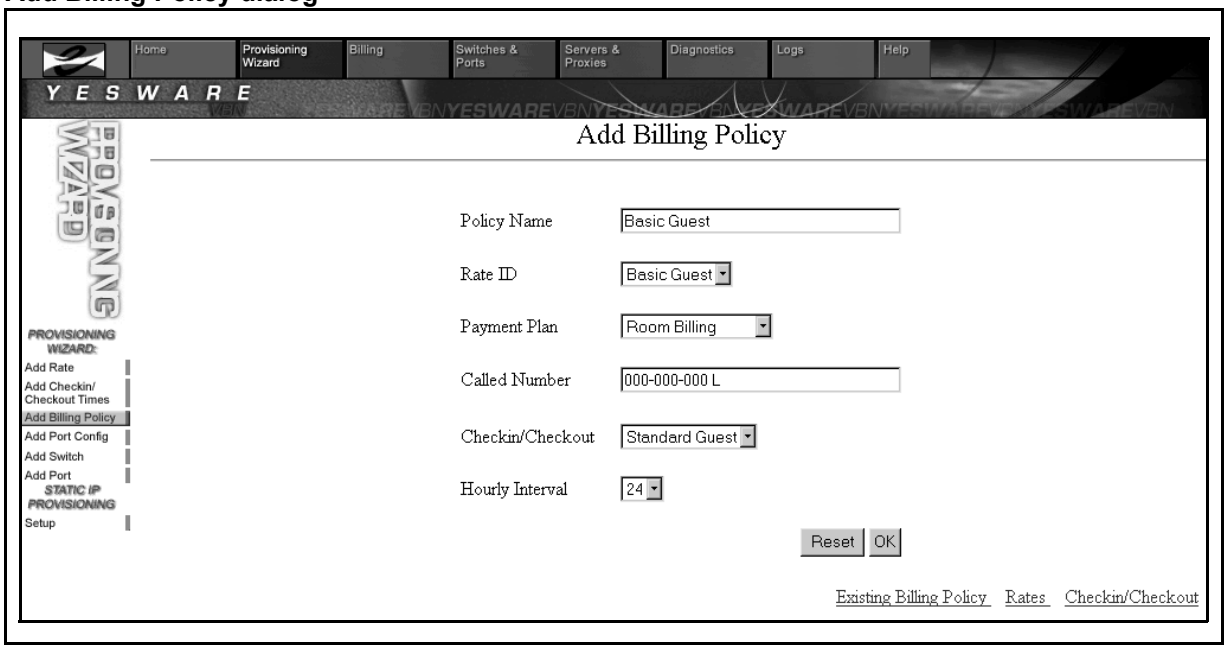


—continued—

Procedure 5-1 (continued)
Setting up a VBN using the Provisioning Wizard module

Step	Action
8	Click the Add Billing Policy link or button to launch the "Add Billing Policy" dialog.
9	Complete the required entries and click the Figure 5-4 shows an example of a properly completed dialog.

Figure 5-4
Add Billing Policy dialog

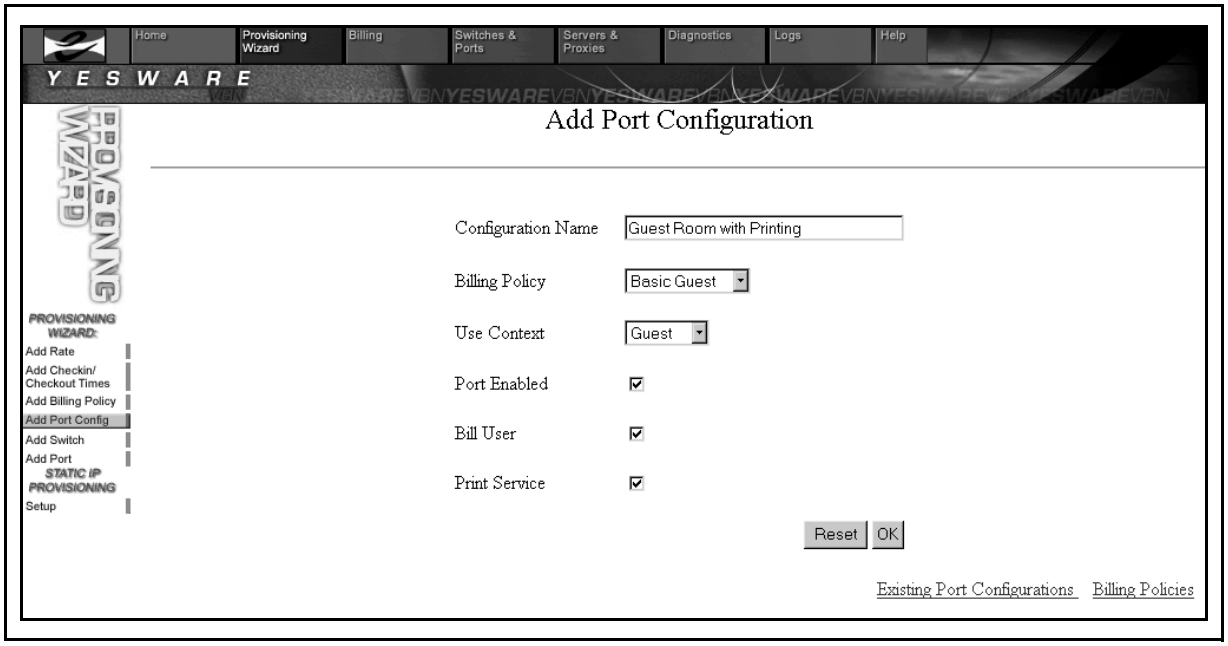


—continued—

Procedure 5-1 (continued)
Setting up a VBN using the Provisioning Wizard module

Step	Action
10	Click the Add Port Configuration link or button to launch the "Add Port Configuration" dialog.
11	Complete the required entries and click the Figure 5-5 shows an example of a properly completed dialog.

Figure 5-5
Add Port Configuration dialog

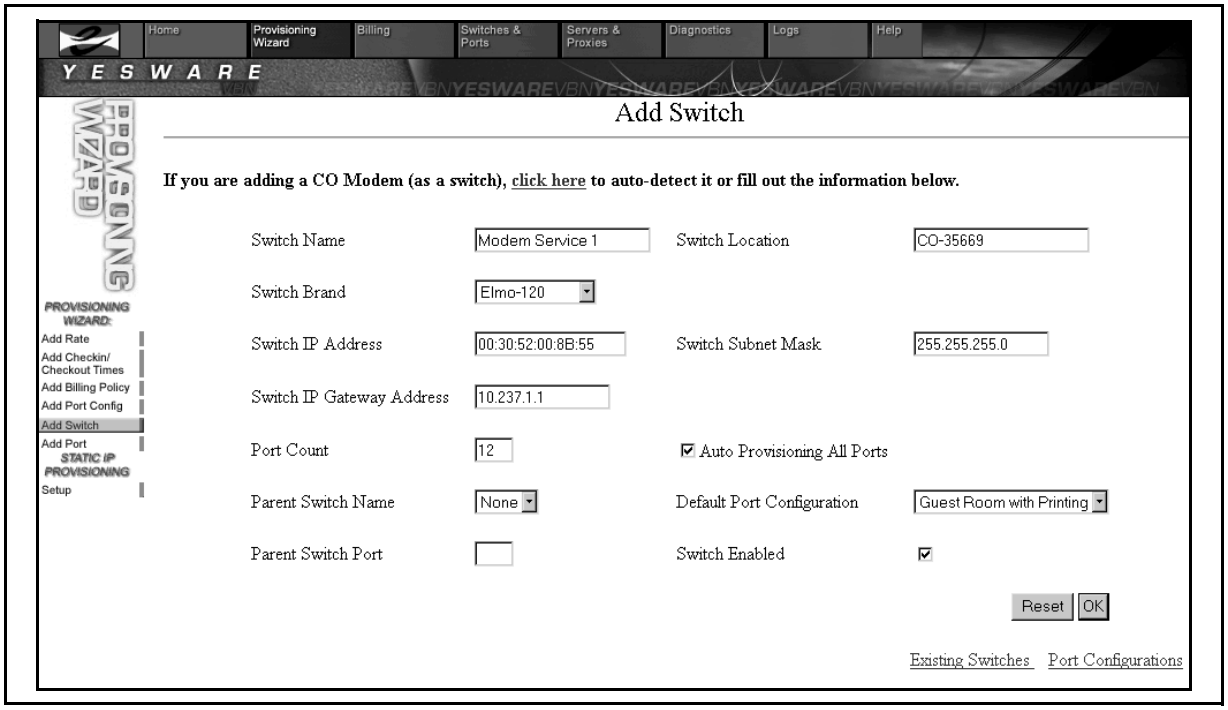


—continued—

Procedure 5-1 (continued)
Setting up a VBN using the Provisioning Wizard module

Step	Action
12	Click the Add Switch link or button to launch the "Add Switch" dialog. If you are provisioning an EtherLoop modem, click the link and select from the list of Unprovisioned CO Modems"
13	Complete the required entries and click the Figure 5-5 shows an example of a properly completed dialog for a CO modem. See Chapter 7, “Using the Switches and Ports module” for more information.

Figure 5-6
Add Switch dialog

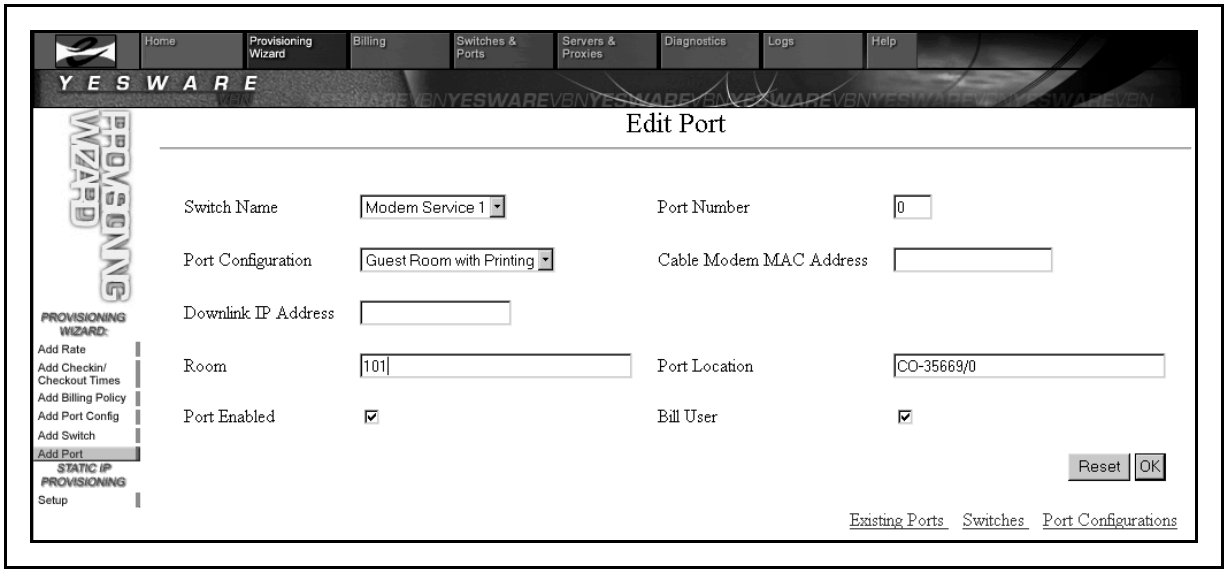


—continued—

Procedure 5-1 (continued)
Setting up a VBN using the Provisioning Wizard module

Step	Action
14	Click the Edit Port link or button to launch the "Edit Port" dialog.
15	Select the desired port from the list of ports.
16	Complete the required entries and click the "OK" button. Figure 5-5 shows an example of a properly completed dialog for a CO modem port. See Chapter 7, “Using the Switches and Ports module” for more information.

Figure 5-7
Edit Port dialog



STOP

You have completed this task.

Static IP Provisioning

The **Static IP Provisioning** function contains the operations to setup and generate static IP addresses. These IP addresses are used with the **Port Schedules** function in the *Switches and Ports* module to create port schedules offer IP conference services. The IP addresses can be purchased by the YesWare service-provider and re-sold to visitors using YesWare's Conference Room Billing method. Chapter 12, "YesWare Static IP configuration and port scheduling" describes the complete requirements for setting up and providing static IP addresses for conference services.

Setup

Clicking the Setup operation link launches the "Static IP Routing Configuration" dialog. This dialog is used to generate port schedules in the YesWare VBN system. Figure 5-8 shows the "Static IP Routing Configuration" dialog. Table 5-2 on page 5-11 describes the field entry specifications and information requirements of this dialog.

Creating Static IP service with the "Static IP Routing Configuration" dialog
See Chapter 12, "YesWare Static IP configuration and port scheduling."

Figure 5-8
Static IP Routing Configuration dialog

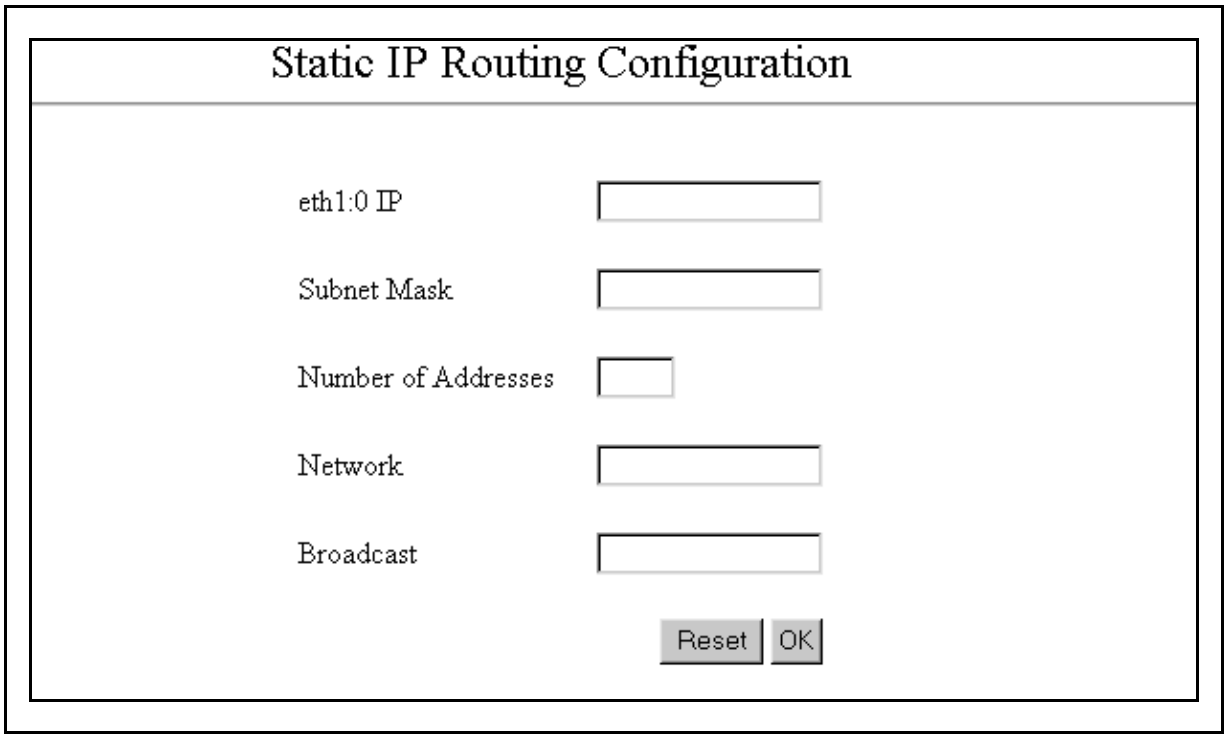


Table 5-2
Static IP Routing Configuration dialog field specifications

Field	Specification
eth1:0 IP	Enter the IP address of the network gateway used by the host network to access the WAN. This address is typically the first addressable IP address in the range. For example, in the Class C IP address range 172.17.10.0-172.17.10.255, the gateway address would typically be **172.17.10.1.** ***Note:*** Do NOT enter the IP address of **ETH 0** in this field. **ETH 0** serves only as an "internal" gateway for the **ETH 1:0** subnet, and cannot serve as a LAN gateway.
Subnet Mask	Enter the network mask for the *Conference Scheduler* subnet. This address is typically **255.255.255.0**, **255.255.0.0**, or **255.0.0.0**.
Network	Enter the network address of the subnet used for the static IP address pool. All visitor IP addresses generated using the "Static IP Routing Configuration" dialog will come from this subnet. This address is typically the first IP address in the range. For example, in the Class C IP address range 172.17.10.0-172.17.10.255, the network address would typically be **172.17.10.0.**
Broadcast	Enter the broadcast address for the YesWare static IP subnet. This address is typically the last IP address in the range. For example, in the Class C IP address range 172.17.10.0-172.17.10.255, the broadcast address would typically be **172.17.10.255.**

Billing for YesWare services and using the *Billing* module

This chapter describes how to implement the Guest Room Billing, Credit Card Billing, and Prepaid/Authorization Code Billing methods, and how to use the *Billing* module.

> ***Note:*** The Conference Room Billing method and the **Static IP Provisioning** function are covered in Chapter 12.

Chapter topic list

This chapter includes the following topics.

Topic	See
Billing for YesWare services	page 6-3
Billing module functions	page 6-5
Billing	page 6-6
Hotel Code	page 6-24
Rates	page 6-25
Check In / Check Out Times	page 6-27
Billing Policies	page 6-29
Authorization Codes	page 6-31
SDRs	page 6-35
Virtual Concierge	page 6-39
Authorize.Net	page 6-43

—continued—

Chapter task list

This chapter includes the following tasks.

Procedure	Task	See
6-1	Configuring the PMS protocol	page 6-8
6-2	Selecting/changing the PMS configuration file used by YesWare	page 6-16
6-3	Generating Authorization Codes	page 6-33
6-4	Retrieving and deleting SDR logs using ftp	page 6-37
6-5	Configuring the Virtual Concierge	page 6-41
6-6	Configuring Credit-Card Billing	page 6-45

Billing for YesWare services

The *Billing* module is used to provision and manage Guest Room Billing, Credit Card Billing, and Prepaid/Authorization Code Billing methods for YesWare services. The following tasks to are required to provision each of these billing methods in the *Billing* module:

- **Room Billing:** configure guest room Check-In/Check-Out times, rates, and the interface to the Property Management System (PMS)
- **Credit-Card Billing:** configure credit-card billing with the **Authorize.Net** Internet credit-card processing service
- **Prepaid/Authorization Code Billing:** generate and manage Authorization Codes for visitors

The following sections describe the system requirements for each of these YesWare billing methods in more detail.

Room Billing

To configure the *Billing* module to use Room Billing, the YesWare administrator must complete the following tasks:

- Provision a YesWare port configuration with the **guest** port Use Context
- Configure the guest room Check-In/Check-Out settings
- Configure the guest room billing rate
- Configure the guest room PMS billing protocol (optional)
- Integrate the BitStorm Server into the facility PMS (optional)

Room Billing and PMS integration

For the requirements and procedures to integrate the YesWare guest rooms into a facility PMS, see “Configure PMS interface” on page 6-6, Procedure 6-1 on page 6-8, and Chapter 11, “YesWare PMS integration.”

Credit Card Billing

To configure the *Billing* module to use Credit Card Billing, the YesWare administrator must complete the following tasks:

- Provision YesWare ports with the **credit** Port Use Context
- Obtain a merchant account with the **Authorize.Net** Internet credit-card processing company
- Configure Credit Card Billing merchant account information using the **Authorize.Net** function in the *Billing* module

Procedure 6-6 on page 6-45 contains the steps required to configure Credit Card Billing in the *Billing* module.

Prepaid/Authorization Code Billing

Authorization Codes are an alphanumeric code that the YesWare visitor enters in the authentication page to receive access to YesWare Services. Authorization Codes are assigned a certain duration when they are generated, such as "5 days." In addition, Authoration Codes have an unconfigurable "freshness" period of 30 days in which the visitor can activate the code. Visitors can activate their Authorization Code at any time during the freshness period, but once activated, the code is only valid for the assigned duration.

For example, if a visitor purchases an Authorization Code with a duration of 5 days, the code's maximum potential activity period includes the 30-day freshness period plus the code duration of 5 days, or 35 days. A visitor activating the code on the 30th day of the freshness period would not be removed from YesWare system authorization and could show activity until the end of the 35th day.

Authorization Code generation

Procedure 6-3 on page 6-33 contains the steps required generate Authorization Codes for use in YesWare systems.

Billing module functions

The rest of this chapter describes how to use the *Billing* module functions. The *Billing* module contains the functions related to billing for YesWare services. Table 6-1 summarizes the purpose of each of the functions in the *Billing* module. The following sections describe each function and its operations in more detail.

Table 6-1
Servers and Proxies module functions

Function name	Function purpose
Billing	This function contains the operations to configure and test the PMS interface, clear billing records, and generate billing reports.
Hotel Code	This function contains the operations to update and review the Hotel Code used by the PMS.
Rates	This function contains the operations to create and review the rates charged to YesWare visitors.
Check In / Check Out Times	This function contains the operations to create and review the Check In and Check Out times used in YesWare guest rooms.
Billing Policies	This function contains the operations to create and review the YesWare Billing Policies. Billing Policies are used to track the billing settings for the system.
Authorization Codes	This function contains the operations to create and review Authorization Codes, and to view and audit Authorization Code logs.
SDRs	This function contains the operations to configure the SDR logs for daily archiving to a separate directory on the BitStorm Server, or specify an external FTP server to receive daily copies of the SDR logs. In addition, this function contains the operations to view and audit the SDR logs.
Virtual Concierge	This function contains the operations to create and review the configuration for the Virtual Concierge, a free service for YesWare visitors.
Authorize.Net	This function contains the operations to update and review the merchant account information for **Authorize.Net**, the Internet credit-card processing company used with YesWare Credit Card Billing.

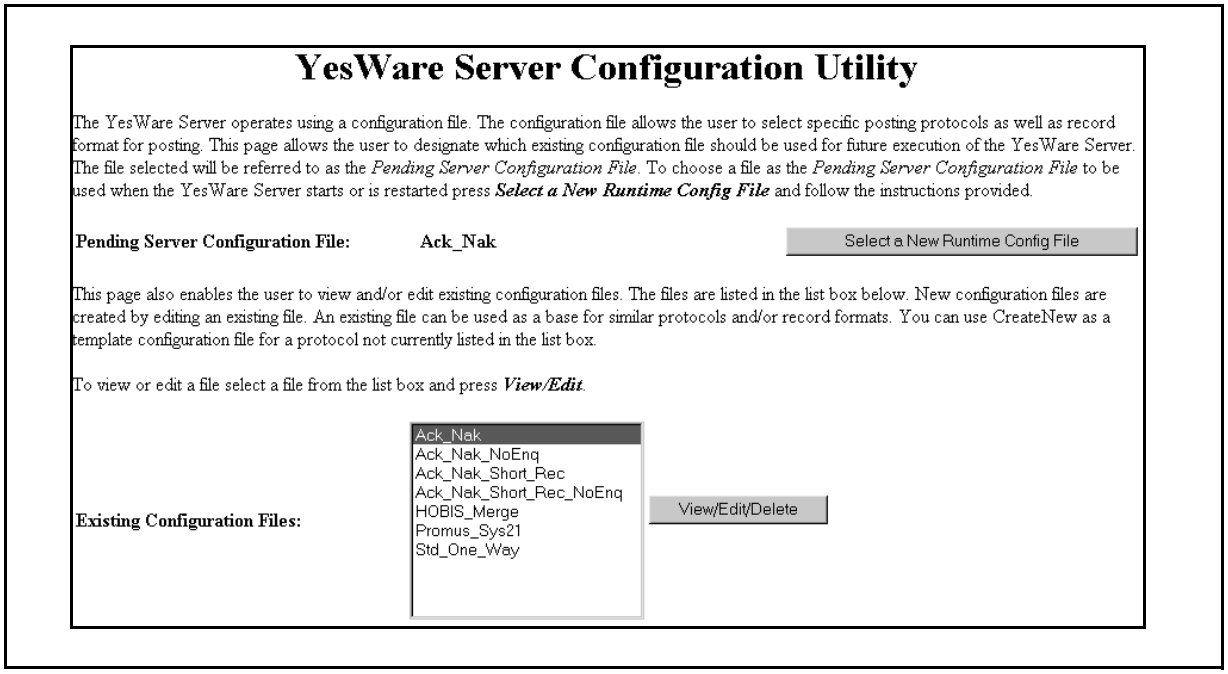
Billing

The **Billing** function contains the operations to configure and test the PMS interface, clear billing records, and generate billing reports.

Configure PMS interface

Clicking the Configure PMS interface operation link launches the "YesWare Server Configuration Utility" dialog. This dialog is used to select and configure the PMS billing protocols used by YesWare. Figure 6-1 shows the "YesWare Server Configuration Utility" dialog. The following sections describe the function, information requirements and use of the utility.

Figure 6-1
YesWare Server Configuration Utility dialog


YesWare Server Configuration Utility
The YesWare Server operates using a configuration file. The configuration file allows the user to select specific posting protocols as well as record format for posting. This page allows the user to designate which existing configuration file should be used for future execution of the YesWare Server. The file selected will be referred to as the Pending Server Configuration File. To choose a file as the Pending Server Configuration File to be used when the YesWare Server starts or is restarted press Select a New Runtime Config File and follow the instructions provided.
Pending Server Configuration File:
Ack_Nak
Select a New Runtime Config File
This page also enables the user to view and/or edit existing configuration files. The files are listed in the list box below. New configuration files are created by editing an existing file. An existing file can be used as a base for similar protocols and/or record formats. You can use CreateNew as a template configuration file for a protocol not currently listed in the list box.
To view or edit a file select a file from the list box and press View/Edit.
Existing Configuration Files:
Ack_Nak
Ack_Nak_NoEnq
Ack_Nak_Short_Rec
Ack_Nak_Short_Rec_NoEnq
HOBIS_Merge
Promus_Sys21
Std_One_Way
View/Edit/Delete

YesWare Server Configuration Utility tasks

The "YesWare Server Configuration Utility" contains the operations for the YesWare administrator and PMS system manager to do the following tasks:

- configure the YesWare PMS protocols to match the facility PMS
- start/stop the YesWare billing server
- select or change the PMS configuration file used for bill posting by the YesWare billing server

Procedure 6-1 on page 6-8 and Procedure 6-2 on page 6-16 contain the steps to perform these tasks.

PMS configuration files in the YesWare Server Configuration Utility

YesWare supports several standard billing protocols that can be used to integrate the BitStorm Server into the facility PMS. Each of these protocols is stored on the BitStorm Server as a "configuration file." The configuration files contain specific posting protocols as well as a record format for posting. Table 6-2 lists the PMS configuration files shipped with YesWare.

Table 6-2
PMS billing configuration files in YesWare

YesWare PMS Configuration File	Billing Protocol and Format	Protocol Function and Purpose
Ack_Nak	60 character HOBIC ack/nak with ENQ	This protocol type sends an ENQ (^e, enquire) character before the record is sent to ask the PMS for acknowledgment, and requires acknowledgment from the PMS before the record is sent.
Ack_Nak_NoEnq	60 character HOBIC ack/nak no ENQ	This type requires acknowledgment after the record is sent, but does not send an ENQ before the record is sent.
Ack_Nak_Short_Rec	48 character HOBIC ack/nak with ENQ	This abbreviated record format type that sends an ENQ (^e, "enquire") before the record is sent, and requires acknowledgment from the PMS after the record is sent.
Ack_Nak_Short_Rec_NoEnq	48 character HOBIC ack/nak no ENQ	This is an abbreviated format type that requires acknowledgment after the record is sent, but does not send an ENQ before the record is sent.
HOBIS_Merge	61 character HOBIS Merge	HOBIS Merge is a simple protocol that works through the hotel PBX call record system. The HOBIS Merge interface passes the billing charges from the BitStorm Server to the PBX, which then processes the bill as a call record and passes the record to the PMS using the existing PMS/PBX interface.
Promus_Sys21	54 character ack/nak	Two-way (ack-nak) protocol for sending charge data to a PMS over the Internet.
Std_One_Way	60 character Pipeline/SMDR (TTY protocol)	This "one-way" protocol does not send an ENQ, and does not accept acknowledgment after a record is sent. This protocol should be used for output from the BitStorm Server to a serial printer.
allprot	61 character Pipeline/SMDR one-way	One-way protocol for sending charge data to a serial printer over the Internet.

Procedure 6-1
Configuring the PMS protocol

Use this procedure to configure the PMS protocol for the YesWare PMS billing server.

Background

The "YesWare Server Configuration Utility" enables the YesWare administrator or manager to work with the host facility's PMS system manager or vendor to view and/or edit existing PMS configuration files. An existing file can be used as a base for similar protocols and/or record formats. New configuration files can only be added to the configuration file list by editing the existing file, renaming the file, and clicking the "Save and Apply Changes" button.

By default, the YesWare PMS "billing server" is off. To use PMS billing, a configuration file must be selected and the billing server must be started.

Requirement

The YesWare administrator or manager must work with the facility PMS system manager or vendor to perform this procedure. Much of the information required for this procedure will be specific to the PMS equipment and the host site.

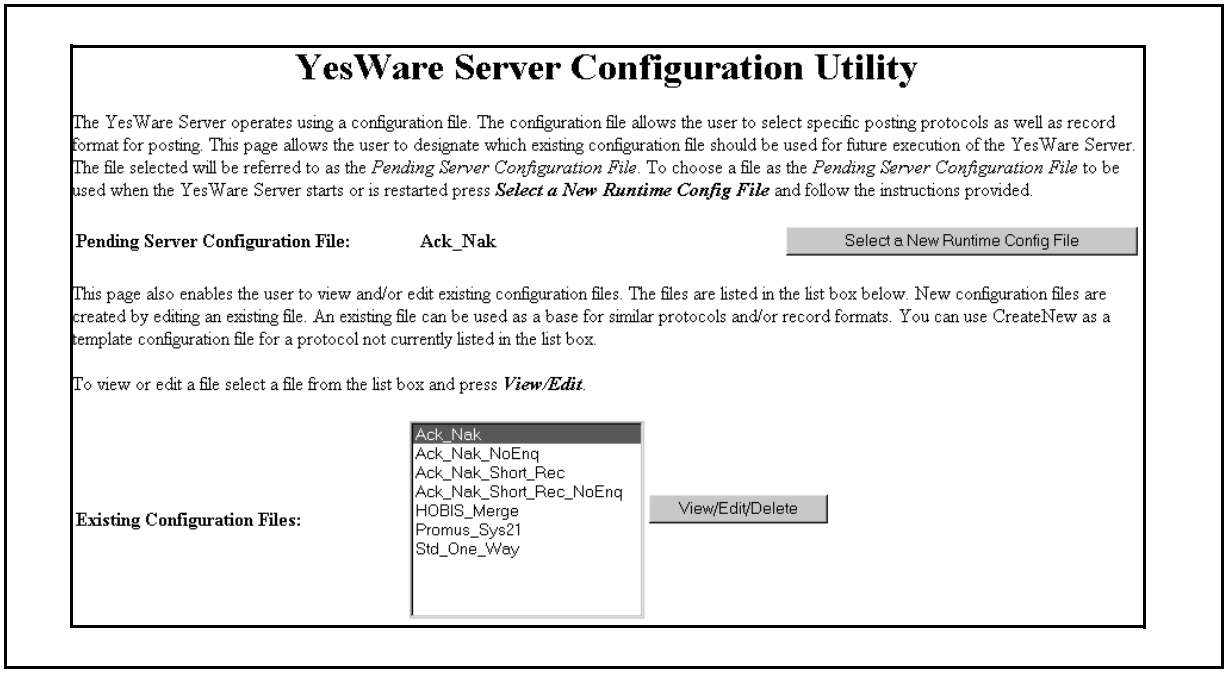
Action

Step	Action
1	Browse to the *Billing* module in the YesWare software group.
2	Click the Configure PMS interface operation link under the **Billing** function to launch the "YesWare Server Configuration Utility" dialog as shown in Figure 6-2 on page 6-9.

—continued—

Procedure 6-1 (continued)
Configuring the PMS protocol

Figure 6-2
YesWare Server Configuration Utility dialog


YesWare Server Configuration Utility
The YesWare Server operates using a configuration file. The configuration file allows the user to select specific posting protocols as well as record format for posting. This page allows the user to designate which existing configuration file should be used for future execution of the YesWare Server. The file selected will be referred to as the Pending Server Configuration File. To choose a file as the Pending Server Configuration File to be used when the YesWare Server starts or is restarted press Select a New Runtime Config File and follow the instructions provided.
Pending Server Configuration File:
Ack_Nak
Select a New Runtime Config File
This page also enables the user to view and/or edit existing configuration files. The files are listed in the list box below. New configuration files are created by editing an existing file. An existing file can be used as a base for similar protocols and/or record formats. You can use CreateNew as a template configuration file for a protocol not currently listed in the list box.
To view or edit a file select a file from the list box and press View/Edit.
Existing Configuration Files:
Ack_Nak
Ack_Nak_NoEnq
Ack_Nak_Short_Rec
Ack_Nak_Short_Rec_NoEnq
HOBIS_Merge
Promus_Sys21
Std_One_Way
View/Edit/Delete

Step	Action
3	Click the View/Edit/Delete button to launch the YesWare Server Configuration Utility questionnaire. This questionnaire is divided into the following sections: • Communication Settings and Logging Information • Protocol Configuration • Message Definition • Configuration File Name Table 6-3 on page 6-10 describes the information required in each of these sections.

—continued—

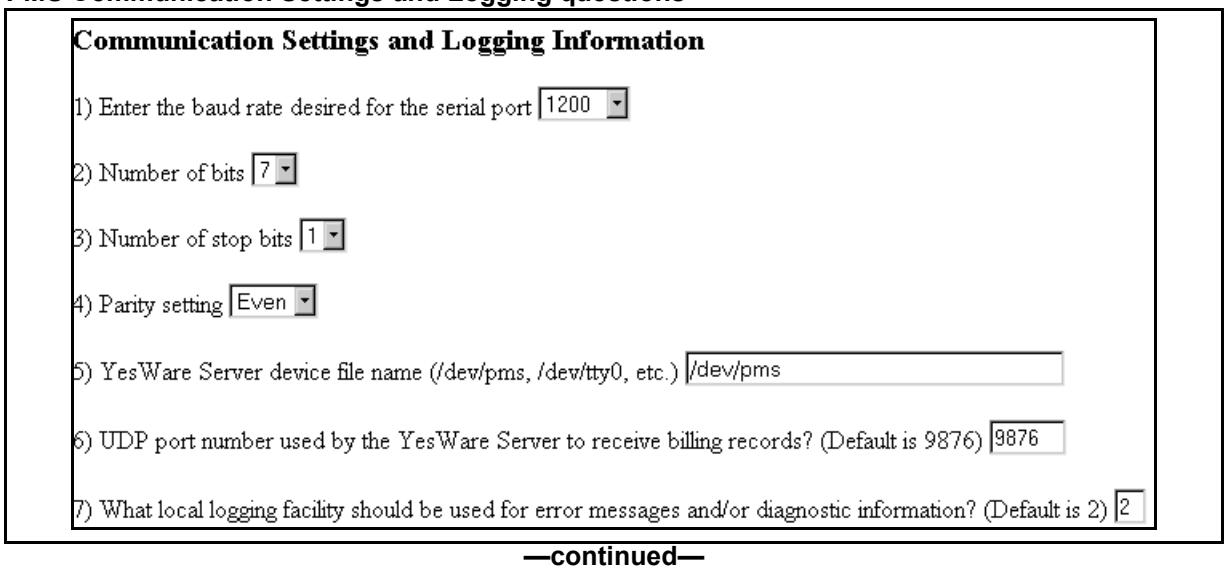
Procedure 6-1 (continued)
Configuring the PMS protocol

Table 6-3
YesWare Server Configuration Utility questionnaire

Section	Information required
Communication Settings and Logging Information	Communications settings include the baud rate for the serial port connecting to the PMS serial interface (BitStorm Server Com 1), number of bits, number of stop bits, and parity. ***Note:*** Logging information should not be modified.
Protocol Configuration	This section defines the type of protocol and record formatting such as the number of block-check characters, total record size and record buffer thresholds.
Message Definition	This section defines field placement and alignment rules for each field within the billing record, including the starting position within the record for the field and the length of the field placed in the billing record.
Configuration File Name	This section displays the unique name for the configuration file and lets the user change the file name for new configurations.

Step	Action
4	Complete the "Communication Settings and Logging Information" section of the questionnaire according to the requirements of the host facility PMS (see Figure 6-3).

Figure 6-3
PMS Communication Settings and Logging questions

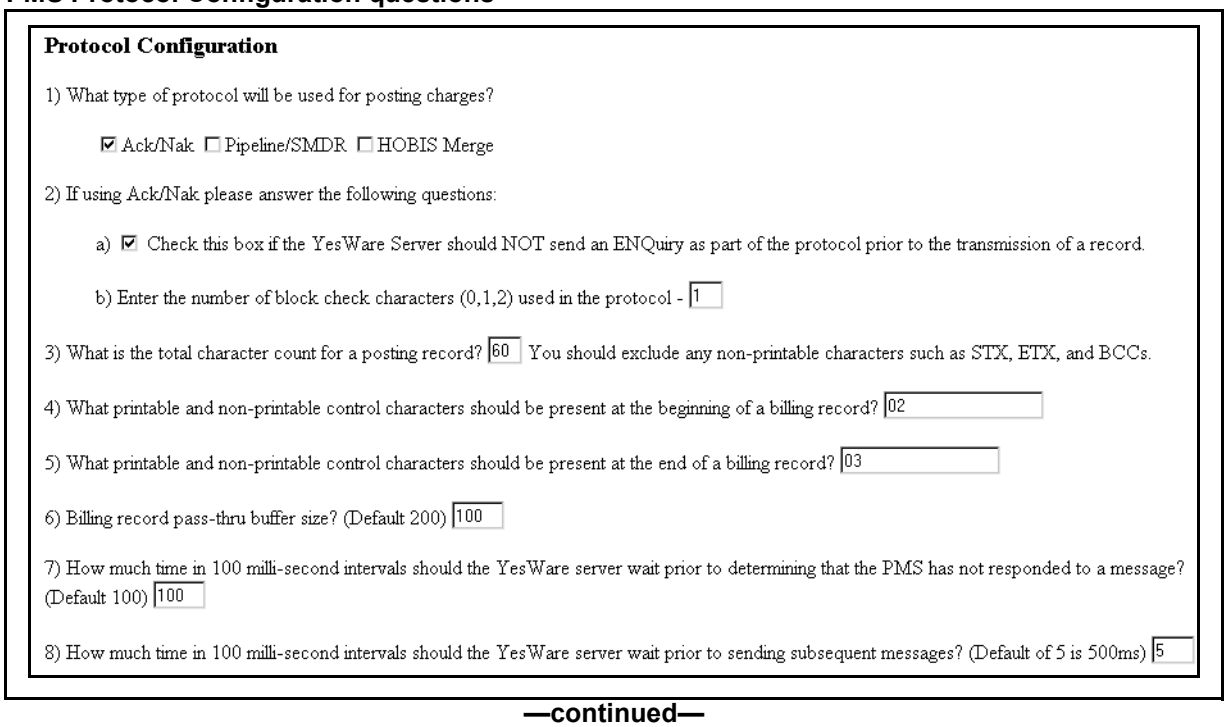

Communication Settings and Logging Information
1) Enter the baud rate desired for the serial port 1200
2) Number of bits 7
3) Number of stop bits 1
4) Parity setting Even
5) YesWare Server device file name (/dev/pms, /dev/tty0, etc.) /dev/pms
6) UDP port number used by the YesWare Server to receive billing records? (Default is 9876) 9876
7) What local logging facility should be used for error messages and/or diagnostic information? (Default is 2) 2

—continued—

Procedure 6-1 (continued)
Configuring the PMS protocol

Step	Action
5	Complete the "Protocol Configuration" section of the questionnaire according to the requirements of the host facility PMS (see Figure 6-4).

Figure 6-4
PMS Protocol Configuration questions


Protocol Configuration
1) What type of protocol will be used for posting charges?
Ack/Nak Pipeline/SMDR HOBIS Merge
2) If using Ack/Nak please answer the following questions:
a) Check this box if the YesWare Server should NOT send an ENQuiry as part of the protocol prior to the transmission of a record.
b) Enter the number of block check characters (0,1,2) used in the protocol - 1
3) What is the total character count for a posting record? 60 You should exclude any non-printable characters such as STX, ETX, and BCCs.
4) What printable and non-printable control characters should be present at the beginning of a billing record? 02
5) What printable and non-printable control characters should be present at the end of a billing record? 03
6) Billing record pass-thru buffer size? (Default 200) 100
7) How much time in 100 milli-second intervals should the YesWare server wait prior to determining that the PMS has not responded to a message? (Default 100) 100
8) How much time in 100 milli-second intervals should the YesWare server wait prior to sending subsequent messages? (Default of 5 is 500ms) 5

—continued—

Procedure 6-1 (continued)
Configuring the PMS protocol

Step	Action
6	Complete the "Message Definition" section of the questionnaire according to the requirements of the host facility PMS (see Figure 6-5).

Figure 6-5
PMS Message Definition questions

Message Definition

Instructions: This table enables the user to configure field placement and alignment rules for each field within the billing record.

a) Position of Field - the starting position within the record for the field. The first position in a billing record is column 0 (excluding prefix characters).

b) Size of Field - the length of the field placed in the billing record. A length of 0 indicates the field is not used in the billing record.

c) Right/Left Justification - This indicates justification applied to the incoming data received and placed in the billing record. Check the appropriate box.

d) Blank/Zero Filled - This indicates how the outgoing field should be padded if the value of the field is shorter than the length specified. Check the appropriate box.

e) Use Default - Check this box to always place the specified default value in the billing record.

f) Value - Default value.

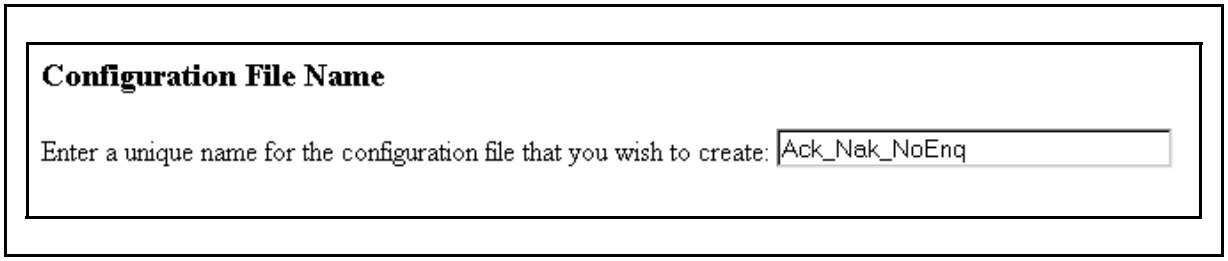
Field Name	Position of Field	Size of Field	Right/Left Justification	Blank/Zero Filled	Use Default | Value
Sequence Number	0	3	☑ / ☐	☐ / ☑	☐ | 999
Wrap Character	3	1	☐ / ☑	☑ / ☐	☐ | *
Hotel Code	5	3	☑ / ☐	☑ / ☐	☑ | AAA
Date Field	9	5	☑ / ☐	☐ / ☑	☐ | 01/13
Station Number	15	5	☐ / ☑	☑ / ☐	☐ | 160
Time Field	21	5	☑ / ☐	☐ / ☑	☐ | 23:59
Duration	27	4	☑ / ☐	☐ / ☑	☐ | 0120
Charge Amount	32	7	☑ / ☐	☐ / ☑	☐ | $999.99
Dialed Digits	40	12	☐ / ☑	☑ / ☐	☐ | INTERNET
Type of Call Field	53	1	☑ / ☐	☑ / ☐	☐ | T

—continued—

Procedure 6-1 (continued)
Configuring the PMS protocol

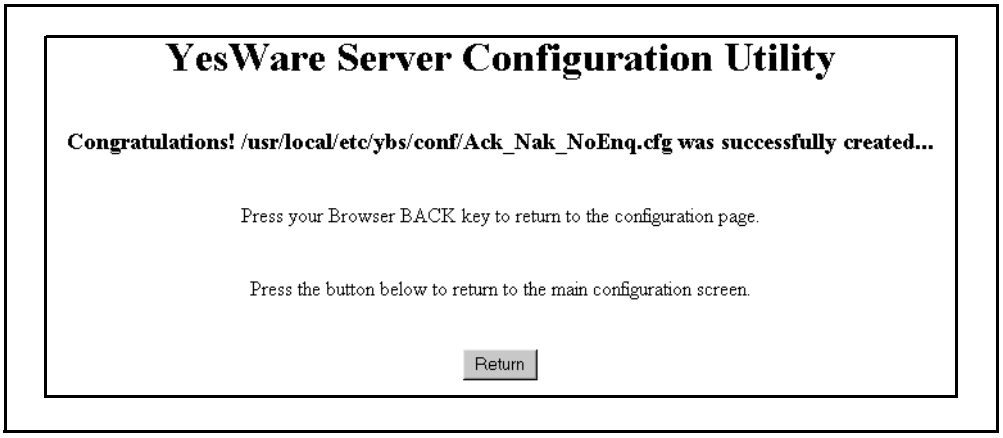
Step	Action
7	Complete the "Configuration File Name" section of the questionnaire according to the requirements of the host facility PMS (see Figure 6-6).

Figure 6-6
PMS Configuration File Name question



Step	Action
8	Click the "Save and Apply Changes" button to change/add the modified/new PMS configuration. The system displays a confirmation dialog as shown in Figure 6-7.

Figure 6-7
PMS confirmation dialog

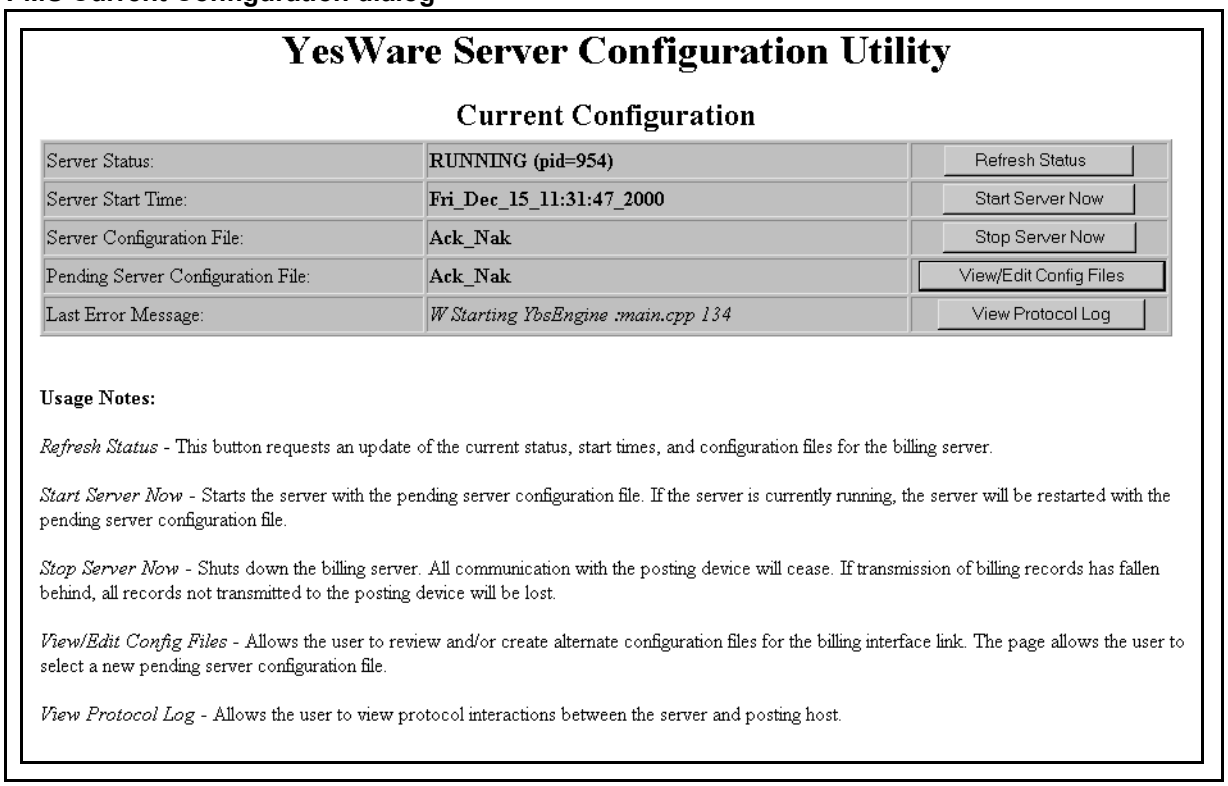

YesWare Server Configuration Utility
Congratulations! /usr/local/etc/ybs/conf/Ack_Nak_NoEnq.cfg was successfully created...
Press your Browser BACK key to return to the configuration page.
Press the button below to return to the main configuration screen.
Return

—continued—

Procedure 6-1 (continued)
Configuring the PMS protocol

Step	Action
9	Click the "Return" button to display the "Current Configuration" dialog as shown in Figure 6-8.

Figure 6-8
PMS Current Configuration dialog


YesWare Server Configuration Utility
Current Configuration
Server Status:
RUNNING (pid=954)
Refresh Status
Server Start Time:
Fri_Dec_15_11:31:47_2000
Start Server Now
Server Configuration File:
Ack_Nak
Stop Server Now
Pending Server Configuration File:
Ack_Nak
View/Edit Config Files
Last Error Message:
W Starting YbsEngine :main.cpp 134
View Protocol Log
Usage Notes:
Refresh Status - This button requests an update of the current status, start times, and configuration files for the billing server.
Start Server Now - Starts the server with the pending server configuration file. If the server is currently running, the server will be restarted with the pending server configuration file.
Stop Server Now - Shuts down the billing server. All communication with the posting device will cease. If transmission of billing records has fallen behind, all records not transmitted to the posting device will be lost.
View/Edit Config Files - Allows the user to review and/or create alternate configuration files for the billing interface link. The page allows the user to select a new pending server configuration file.
View Protocol Log - Allows the user to view protocol interactions between the server and posting host.

—continued—

Procedure 6-1 (continued)
Configuring the PMS protocol

Step	Action
10	Review the settings in the "Current Configuration" dialog. Verify the following: • "Server Status" is "RUNNING" • Both the "Server Configuration File" and the "Pending Server Configuration File" are correct for the host PMS system. Proceed according to the following table:

If the PMS server settings in the "Current Configuration" are	**Then**
Correct for the host PMS system	Connect and integrate the BitStorm Server into the facility PMS as described in Chapter 11, “YesWare PMS integration.”
Incorrect for the host PMS system	Select and change the PMS server configuration settings as described in Procedure 6-2 on page 6-16.

You have completed this task.

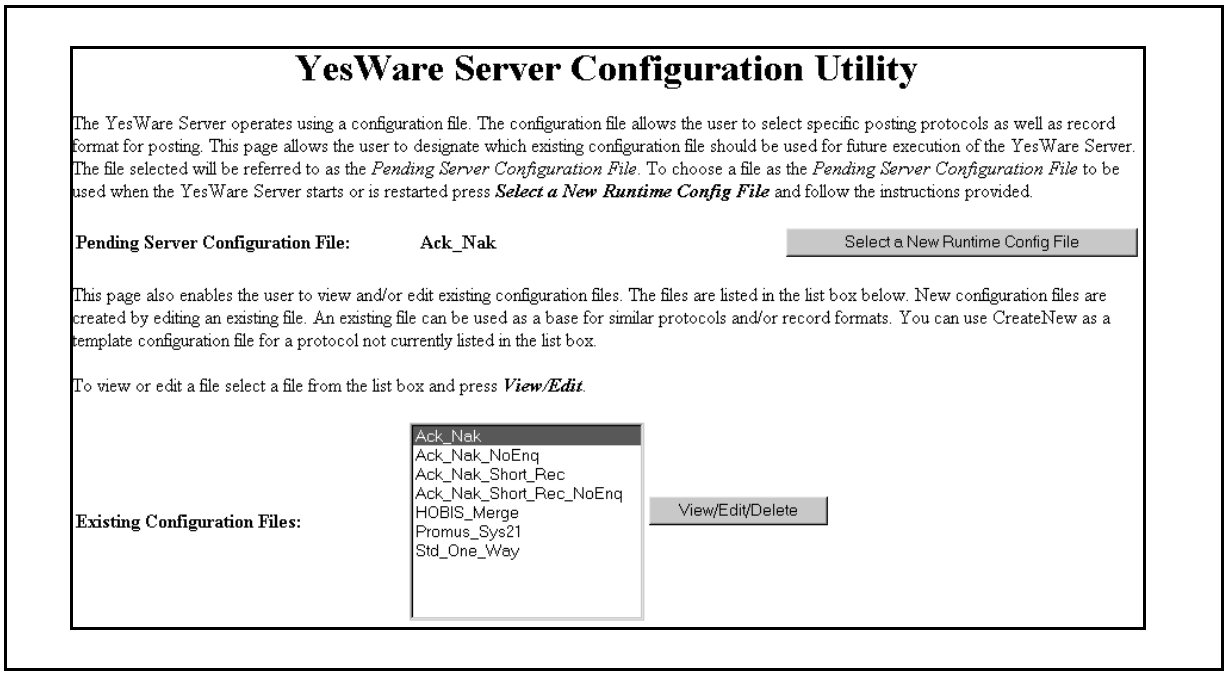
Procedure 6-2
Selecting/changing the PMS configuration file used by YesWare

Use this procedure to select and change the configuration file settings for the PMS billing server.

Action

Step	Action
1	Browse to the *Billing* module in the YesWare software group.
2	Click the Configure PMS interface operation link under the **Billing** function to launch the "YesWare Server Configuration Utility" dialog as shown in Figure 6-9.

Figure 6-9
YesWare Server Configuration Utility dialog

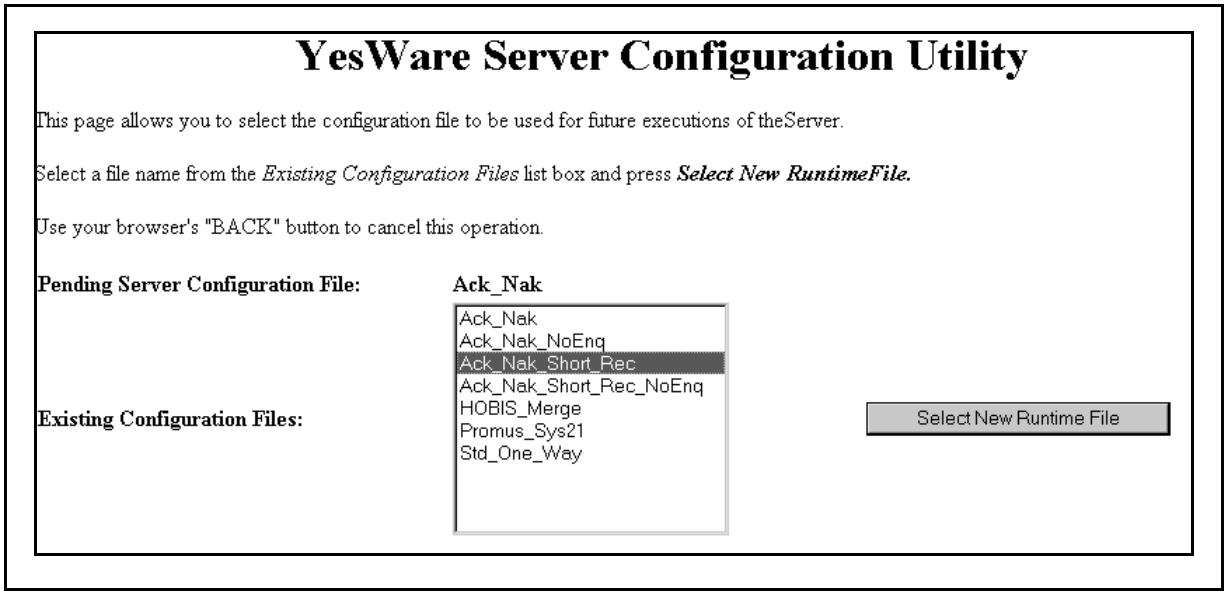

YesWare Server Configuration Utility
The YesWare Server operates using a configuration file. The configuration file allows the user to select specific posting protocols as well as record format for posting. This page allows the user to designate which existing configuration file should be used for future execution of the YesWare Server. The file selected will be referred to as the Pending Server Configuration File. To choose a file as the Pending Server Configuration File to be used when the YesWare Server starts or is restarted press Select a New Runtime Config File and follow the instructions provided.
Pending Server Configuration File:
Ack_Nak
Select a New Runtime Config File
This page also enables the user to view and/or edit existing configuration files. The files are listed in the list box below. New configuration files are created by editing an existing file. An existing file can be used as a base for similar protocols and/or record formats. You can use CreateNew as a template configuration file for a protocol not currently listed in the list box.
To view or edit a file select a file from the list box and press View/Edit.
Existing Configuration Files:
Ack_Nak
Ack_Nak_NoEnq
Ack_Nak_Short_Rec
Ack_Nak_Short_Rec_NoEnq
HOBIS_Merge
Promus_Sys21
Std_One_Way
View/Edit/Delete

—continued—

Procedure 6-2 (continued)
Selecting/changing the PMS configuration file used by YesWare

Step	Action
3	Click Select a New Runtime Config File button to launch the page used to select the new Runtime configuration file as shown in Figure 6-10.

Figure 6-10
Server runtime configuration file selection dialog


YesWare Server Configuration Utility
This page allows you to select the configuration file to be used for future executions of theServer.
Select a file name from the Existing Configuration Files list box and press Select New RuntimeFile.
Use your browser's "BACK" button to cancel this operation.
Pending Server Configuration File:
Ack_Nak
Existing Configuration Files:
Ack_Nak
Ack_Nak_NoEnq
Ack_Nak_Short_Rec
Ack_Nak_Short_Rec_NoEnq
HOBIS_Merge
Promus_Sys21
Std_One_Way
Select New Runtime File

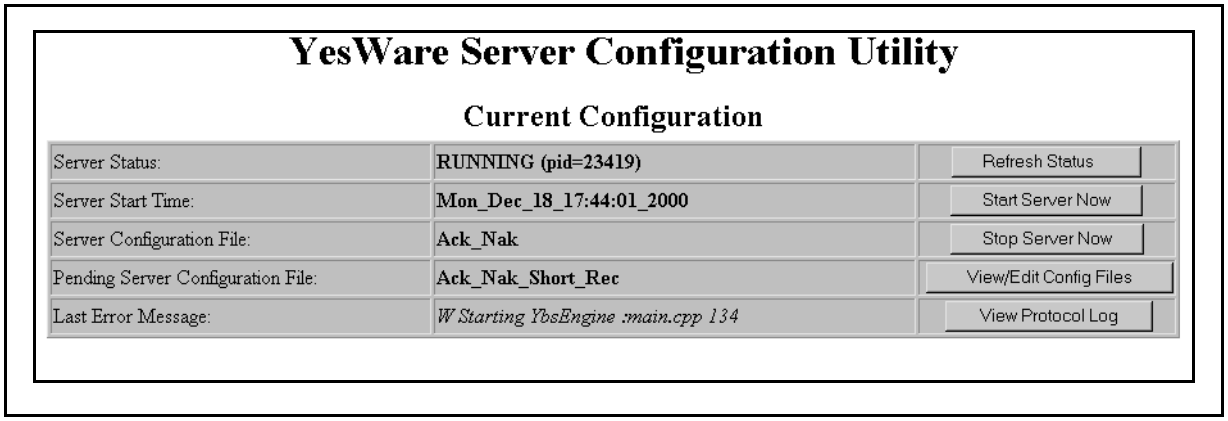
4	In the "**Existing Configuration Files:**" sub-window, select the desired configuration file from the list as shown in Figure 6-10.

—continued—

Procedure 6-2 (continued)
Selecting/changing the PMS configuration file used by YesWare

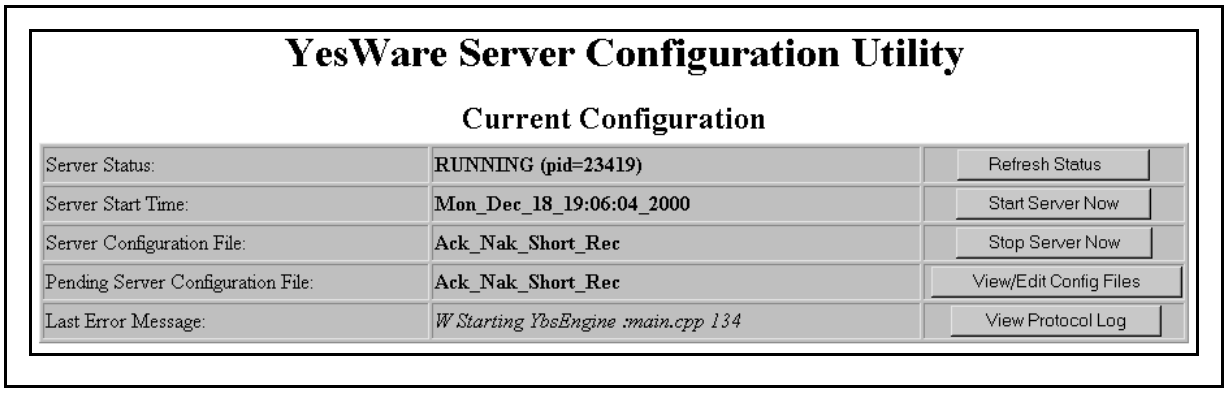
Step	Action
5	Click Select New Runtime File button. The system launches the "Current Configuration" dialog as shown in Figure 6-11. Note that the configuration file selected in step 4 is now the "Pending Configuration File" (see Figure 6-10 on page 6-17 and Figure 6-11 below).

Figure 6-11
PMS Server Current Configuration dialog with pending new configuration file



6	Start the YesWare PMS server using the "Start Server Now" button in the "Current Configuration" dialog (see Table 6-4 on page 6-19 for an explanation of all the buttons in this dialog). When the billing server is started, the "Pending Server Configuration File" becomes the active ("RUNNING") billing server (see Figure 6-11 and Figure 6-12).

Figure 6-12
PMS Server Current Configuration dialog with new active configuration file



—continued—

Procedure 6-2 (continued)
Configuring the PMS protocol:

Table 6-4
PMS "Current Configuration" dialog buttons

Dialog Button	Description
Refresh Status	This button requests an update of the current status, start times, and configuration files for the billing server.
Start Server Now	Starts the PMS billing server with the pending server configuration file. If the server is currently running, the server will be restarted with the pending server configuration file.
Stop Server Now	Shuts down the PMS billing server. All communication with the posting device will cease. If transmission of billing records has fallen behind, all records not transmitted will be lost.
View/Edit Config Files	Allows the user to review and/or create alternate configuration files for the billing interface link. See “Configure PMS interface” on page 6-6.
View Protocol Log	Displays protocol interactions between the server and posting host.

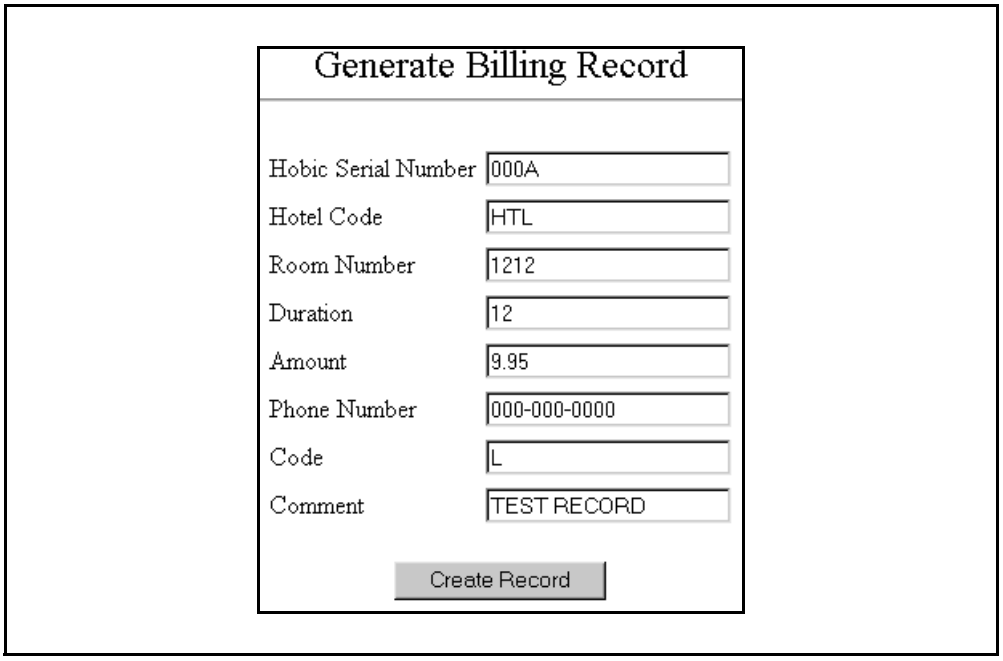
You have completed this task.

Test PMS Interface

Clicking the Test PMS Interface operation link launches the "Generate Billing Record" dialog. The "Create Record" button in the "Generate Billing Record" dialog generates a generic billing record that can be used to test YesWare posting to the PMS. This operation should be used after the BitStorm Server has been connected to the PMS.

Figure 6-13 shows the "Generate Billing Record" dialog.

Figure 6-13
Generate Billing Record dialog

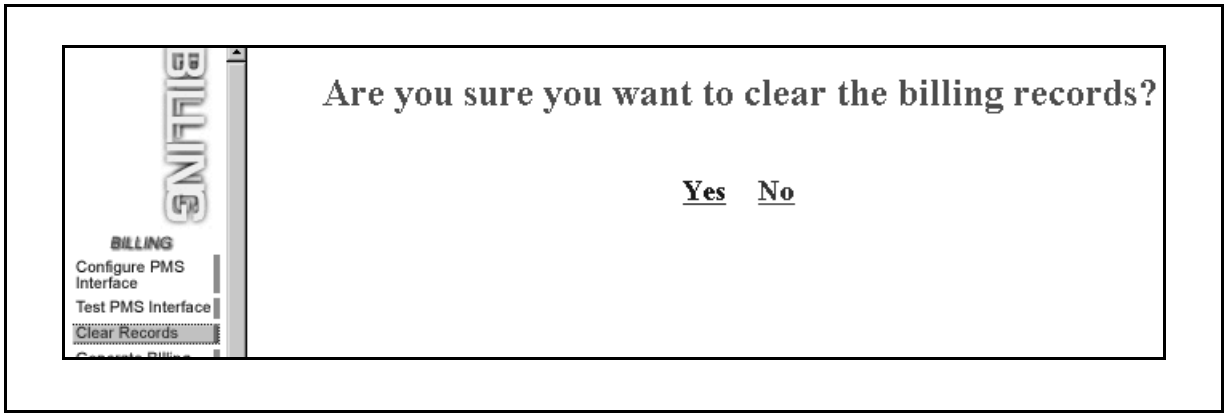


Clear Records

Clicking the Clear Records operation link launches the Clear Records confirmation dialog. Click "No" in this dialog to return to the main Billing Module screen. Click "Yes" to delete all billing records from the system database.

Figure 6-14 shows the Clear Records confirmation dialog.

Figure 6-14
Clear Records confirmation dialog



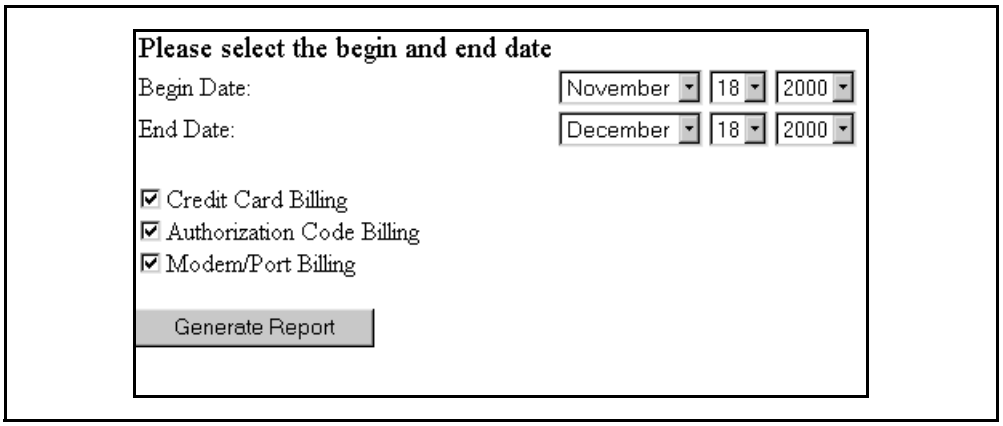
Generate Billing Reports

The Generate Billling Reports operation is used to generate detail billing reports for the three methods of YesWare billing (Room Billing, Prepaid Billing, and Credit Card Billling). Reports can be generated for any one or all of the YesWare billing record types.

Selecting billing report dates and record types

Clicking the Generate Billling Reports operation link launches a dialog used to select the report start/end dates and the type(s) of reports to generate. Figure 6-15 shows this dialog.

Figure 6-15
Billing report selection dialog



Note: The billing report software interface refers to "Authorization Code Billing" and "Modem/Port Billing." Authorization Code Billing is the same as Prepaid Billing. Modem/Port Billing is the same as Room Billing.

Generating a billing report

Clicking the "Generate Report" button displays a confirmation dialog confirming the type(s) and dates selected for report generation. Click the "Yes" button to generate the report for the report type(s) and dates selected. Figure 6-16 shows a basic billing report with the types of detail contained in all three billing types.

Figure 6-16
Billing reports dialog

Authorization Code Billing Report

Matches Found:	3
Start Date:	November-19-2000
End Date:	December-19-2000

Transaction Date	Action
Dec 14 11:43:17 DocTrain330 AuthorizationServer[31079]: Thu Dec 14 11:43:17 EST 2000	CREATE - 000000 : 86400 : 100.00 : 0 : Elastic 1A : : 0

Modem/Port Billing Report

Matches Found:	8
Start Date:	November-19-2000
End Date:	December-19-2000

Transaction Date	Action
Dec 13 15:37:35 DocTrain330 BillingServer[968]: Wed Dec 13 15:37:35 EST 2000	000A *** 12/13 15:37 0000 $500.00 JOESHCKTLWJY ADD PORT SCHEDULE

Credit Card Billing Report

Matches Found:	0
Start Date:	November-19-2000
End Date:	December-19-2000

Start Month	Start Day	Start Year	Start Hour	Start Min	End Month	End Day	End Year	End Hour	End Min	Property	Total Charge	Customer	Room Location	Order ID

Would you like to download the Report?

Comma-Delimited | Tab-Delimited

Billing report download format options

The billing report dialog offers the options of downloading the billing report in "Comma-Delimited" or "Tab-Delimited" formats. Selecting "Comma-Delimited" allows saving the report in a file that can be opened in a spreadsheet program such as Microsoft *Excel*. Selecting "Tab-Delimited" changes the report on the web page into a more printable format.

Hotel Code

This function contains the operations to update and review the Hotel Code used by the PMS. Hotel codes are a three-letter code used by some PMS systems (and not used by many others) to identify the hotel site in the PMS record system. Check with the facility PMS manager or vendor to determine if hotel codes are used by the facility PMS.

Figure 6-17 shows the "Hotel Code Configuration" dialog launched by clicking the Update operation link. Figure 6-18 shows the "Review Hotel Code" dialog launched by clicking the Review operation link.

Figure 6-17
Hotel Code Configuration update dialog

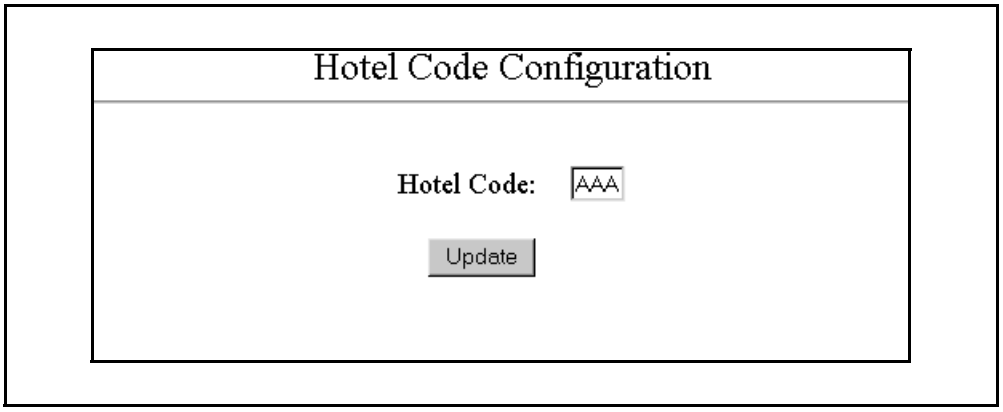
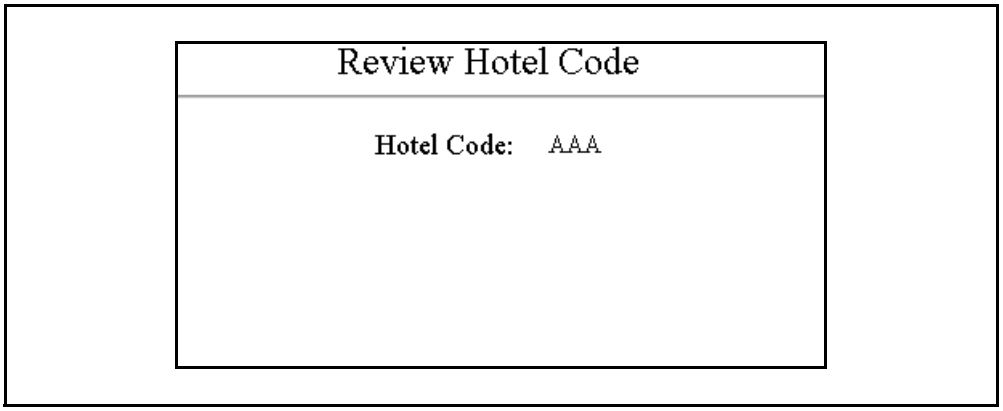


Figure 6-18
Review Hotel Code dialog



Rates

This function contains the operations to create and review the billing rates used by YesWare. One billing rate can be provisioned for each type of billing (Room Billing, Prepaid/Authorization Code BillingPrepaid/Authorization Code Billing, and Credit Card Billling) and/or for each billing freqency (daily, weekly, etc.). However, in facilities that require posting to a PMS, YesWare can post only one rate to the PMS.

Figure 6-19 shows the "Add Rate" dialog launched by clicking the Create operation link. Figure 6-20 shows the "Review Rates" dialog launched by clicking the Review operation link. Table 6-5 on page 6-26 describes the field entry requirements and recommendations for the adding a rate using the "Add Rate" dialog.

Figure 6-19
Add Rate dialog

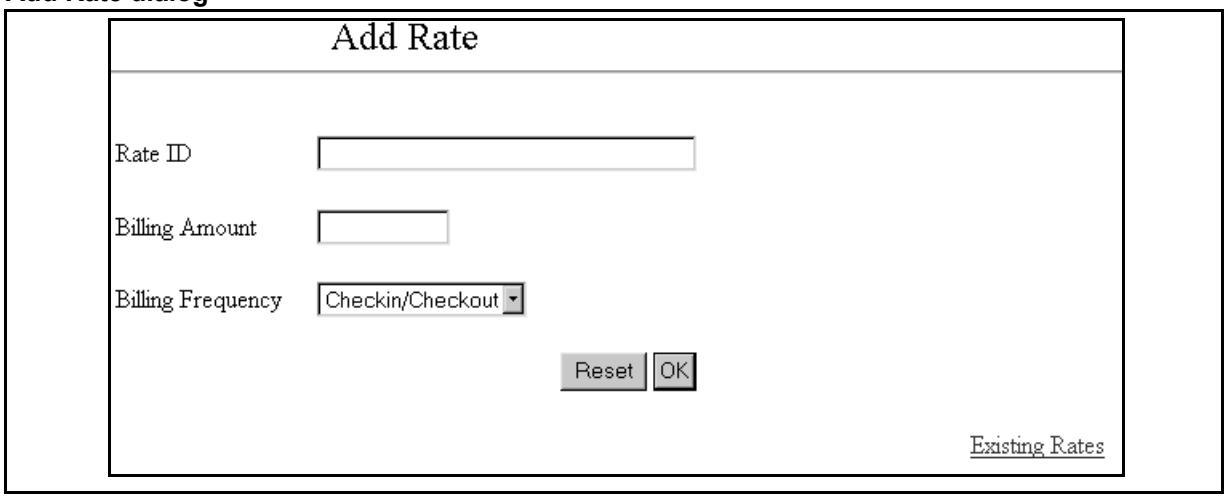


Figure 6-20
Review Rates dialog

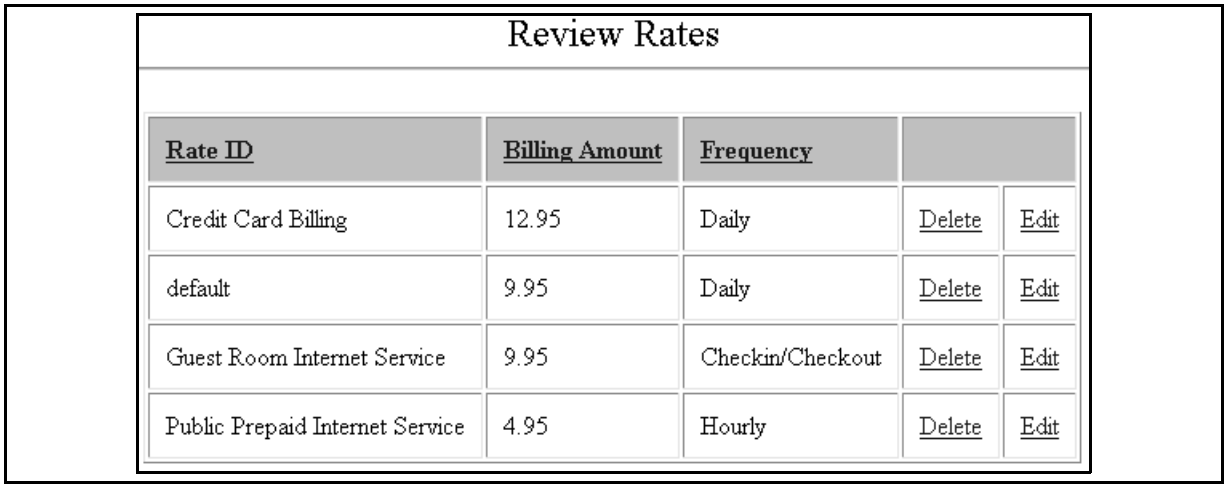


Table 6-5
Add Rate dialog field specifications

Field	Specification
Rate ID	Enter the name of the billing rate. Rates should be named for easy identification in terms of the billing method (Room Billing, Prepaid/Authorization Code Billing, and Credit Card Billing). See Figure 6-20 on page 6-25.
Billing Amount	Enter the amount to be charged to YesWare VBN visitors for the Internet service.
Billing Frequency	Enter the frequency that visitors will be billed for the specified amount. Billing Frequency options include the following: • **Hourly:** Visitors are billed for the "Hourly Interval" specified (1-24 hours) using the **Billing Policies** function. Users are not billed by the hour, but are charged for access to the entire hourly interval. For example, if the specified Hourly Interval is 4 hours and a visitor only uses the service for one hour, the visitor is still billed the total rate for the four hours of time the service was available. • **Daily:** Visitors are billed for each day they use the service. Billing cut-off for daily service is 12:01 a.m. (00:01). • **Check-In/Check-Out:** Visitors are billed each day based on the Check-In/Check-Out times specified using the **Check In/Check Out Times** function. • **Weekly:** Visitors are billed for each 7-day period of service. • **Monthly:** Visitors are billed for each 30-day period of service.

Check In / Check Out Times

This function contains the operations to create and review the check-in and check-out times used by YesWare to bill visitors.

Figure 6-21 shows the "Add Checkin/Checkout Times" dialog launched by clicking the Create operation link. Figure 6-22 shows the "Review Checkin/Checkout Times" dialog launched by clicking the Review operation link. Table 6-6 on page 6-28 describes the field entry requirements and recommendations for the adding a rate using the "Add Checkin/Checkout Times" dialog.

Figure 6-21
Add Checkin/Checkout Times dialog

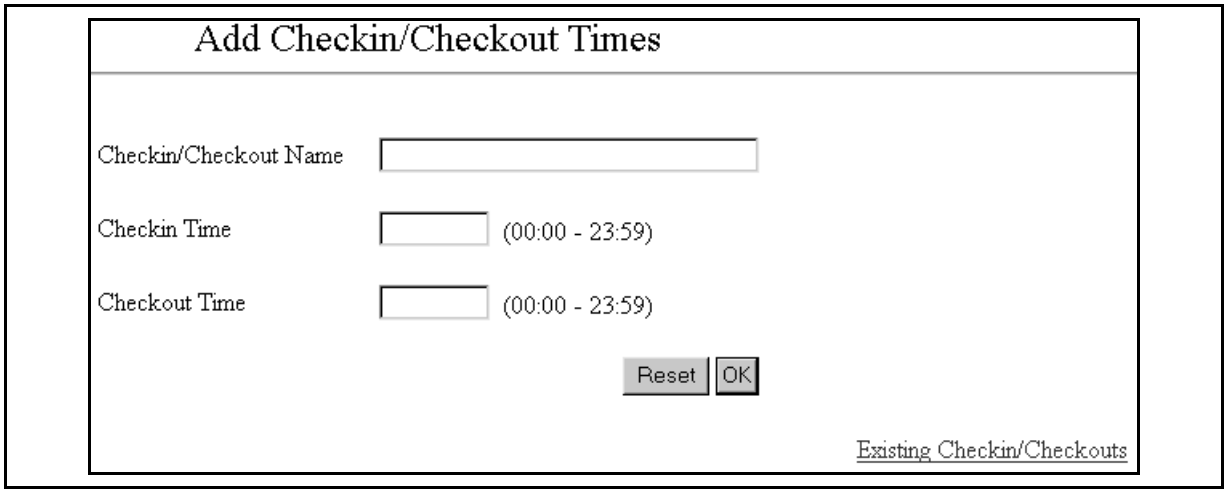


Figure 6-22
Review Checkin/Checkout Times dialog

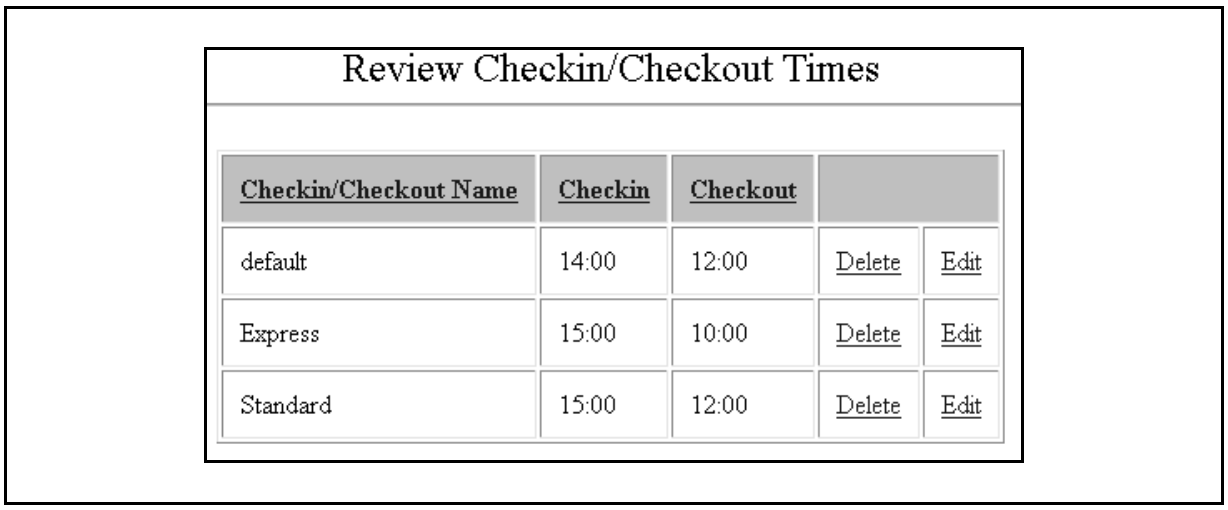


Table 6-6
Add Checkin/Checkout Times dialog field specifications

Field	Specification
Checkin/Checkout Name	Enter the name of the Checkin/Checkout plan. Multiple Checkin/Checkout names can be provisioned, but most facilities should only need one YesWare Checkin/Checkout name/plan even if the hotel has more than one Checkin/Checkout plan.
Checkin Time	Enter the time of day designated as the Checkin time. The time must be based on a 24-hour clock, and must match the format **00:00**.
Checkout Time	Enter the time of day designated as the Checkout time. The time must be based on a 24-hour clock, and must match the format **00:00**.

Billing Policies

This function contains the operations to create and review the billing policies used by YesWare. One billing policy should be provisioned for each type of billing (Room Billing, Prepaid/Authorization Code Billing, and Credit Card Billling) and/or for each billing freqency (daily, weekly, etc.). However, in facilities that require posting to a PMS, YesWare can post only one rate to the PMS.

Figure 6-23 shows the "Add Billing Policy" dialog launched by clicking the Create operation link. Figure 6-24 shows the "Review Billing Policies" dialog launched by clicking the Review operation link. Table 6-7 on page 6-30 describes the field entry requirements and recommendations for the adding a rate using the "Add Rate" dialog.

Figure 6-23
Add Billing Policy dialog

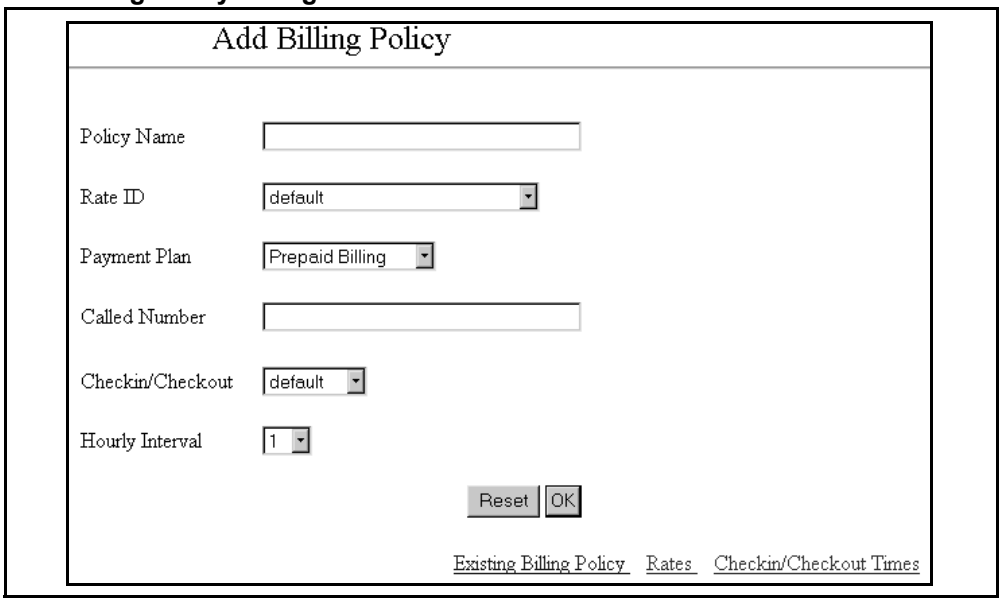


Figure 6-24
Review Billing Policies dialog

Review Billing Policies

Policy Name	Rate ID	Plan	Called Number	Checkin/Checkout Name	Hourly Interval		
Credit Card	Credit Card Billing	Credit Card Billing		default	1	Delete	Edit
default	default	Room Billing	000-000-0000 L	default	1	Delete	Edit
Guest Room	Guest Room Internet Service	Room Billing	000-000-0000 L	Standard	1	Delete	Edit
Prepaid	Public Prepaid Internet Service	Prepaid Billing		default	1	Delete	Edit

Table 6-7
Add Billing Policy dialog field specifications

Field	Specification
Policy Name	Enter the name of the billing policy. Policies should be named for easy identification in terms of the billing method (Room Billing, Prepaid/Authorization Code Billing, and Credit Card Billing). See Figure 6-24 on page 6-29.
Rate ID	Select one of the Rate IDs provisioned using the **Rates** function to associate with this billing policy.
Payment Plan	Select a Payment Plan corresponding to the billing method used for the port. Payment plans include the following: • Prepaid Billing • Room Billing • Credit Card Billing
Called Number	Optional. If the facility PMS requires a called number format, enter that format in this field.
Checkin/Checkout	Select one of the Checkin/Checkout names provisioned using the **Checkin/Checkout Times** function to associate with this billing policy.
Hourly Interval	Select the Hourly Interval (1-24) to use for the hourly billing frequency provisioned using the **Rates** function. If any other billing frequency is selected (daily, weekly, monthly, or checkin/checkout), this field is ignored.

Authorization Codes

This function contains the operations to create and review the Authorization Codes used by YesWare visitors.

Create

The **Authorization Codes** / Create operation is used to generate authorization codes for visitors to use in the YesWare system.

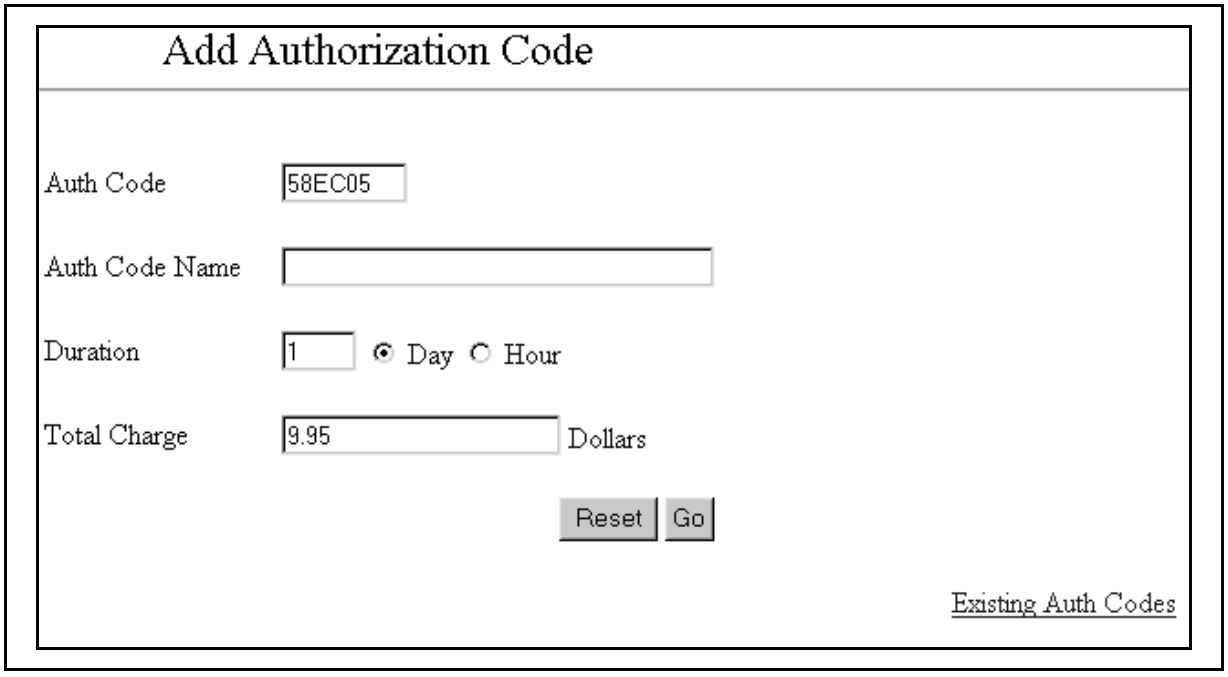
Authorization Code creation procedure for Operators

The **Authorization Codes** / Create operation is one of the operations that can be performed by "Operator" users such as front desk clerks. The Operator generates the Authorization Code and distributes the code to the visitor upon receipt of payment.

Procedure 6-3 on page 6-33 contains a step-by-step procedure to create an Authorization Code. This procedure should be copied and given to system Operators.

Figure 6-25 shows the "Add Authorization Code" dialog launched by clicking the Create operation link.

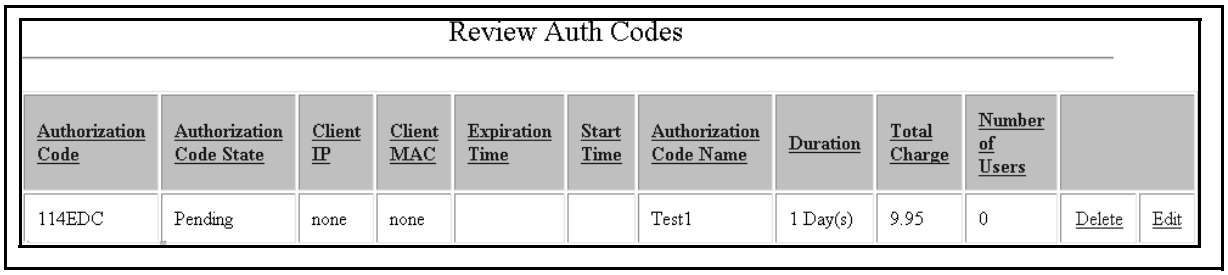
Figure 6-25
Add Authorization Code dialog



Review

The **Authorization Codes** / Review operation generates an Authorization Code table that lists all codes generated in the system and the statistics of the code (pending or activated, code duration, total charge, etc.). Figure 6-26 shows the "Review Auth Codes" dialog launched by clicking the Review operation link.

Figure 6-26
Review Auth Codes dialog



View Logs and Audit Logs

The **Authorization Codes** / View Logs operation generates the same information as the Review operation, but in a log format. The **Authorization Codes** / Audit Logs operation checks the Auth Code log for used/activated Authorization codes. The **Authorization Codes** / View Logs and Audit Logs operations can be used to view the Auth Code logs in "real time," as soon as a log is recorded.

Procedure 6-3
Generating Authorization Codes

Use this procedure to procedure to generate the Authorization Codes given to the visitors paying for service on the YesWare system. The Operator should generate the Authorization Code and distribute the code to the visitor upon receipt of payment.

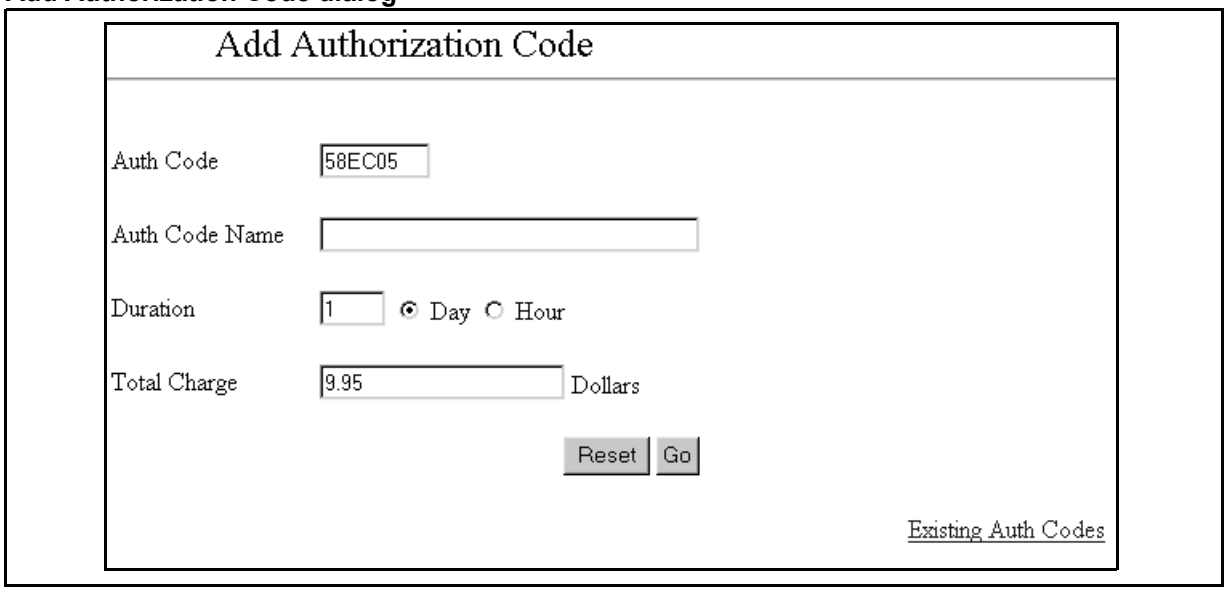
Requirement

The YesWare administrator or operator must know the rate charges and durations used according to the facility rate schedule requirements.

Action

Step	Action
1	Launch a Web browser and browse to the IP address assigned to the YesWare system by the YesWare manager or network administrator.
2	Click the ***YesWare-VBN*** link on the main page.
3	In the Welcome dialog, enter your assigned YesWare user name and password and click the OK button.
4	From the YesWare main menu, click the *Billing* module button.
5	Under the **Authorization Codes** function, click the Create operation. The "Add Authorization Code" dialog appears as shown in Figure 6-27.

Figure 6-27
Add Authorization Code dialog



—continued—

Procedure 6-3 (continued)
Generating Authorization Codes

6 In the **Auth Code Name** field, enter the name assigned to the Authorization Code. Depending on system procedures, this name can be the visitor's name or the billing name assigned to the service (such as "Lobby Internet Service").

7 In the **Duration** field, enter the amount of time that the authorization code is to be active and click **Days** or **Hours** as the increment of time that the code is to be in effect. The entry in the Duration field must be an integer.

8 In the **Total Charge** field, enter the total charge billed to the Authorization Code. The entry in this field must be decimal to two places, with no dollar-sign.

9 Print out two copies of this screen using the web-browser's Print function and give one copy to the YesWare visitor upon receipt of payment. Keep the second copy for facility records.

10 Click **Go** to generate the authorization code in the YesWare system.

You have completed this task.

SDRs

This function contains the operations to manage the Service Detail Records (SDRs). SDRs are used to record service in YesWare port configurations provisioned for Room Billing using the **guest** port Use Context. SDRs are the records used for posting to the facility PMS. SDR logs can be automatically sent to a designated network location or retrieved using ***ftp***.

Configuration

The SDRs / Configuration operation SDR logs can be automatically sent to a designated network ***ftp*** server or retrieved from the BitStorm Server using ***ftp***.

Figure 6-28 shows the "Configure SDR Log Archive" dialog launched by clicking the Configuration operation link. Table 6-8 on page 6-36 describes the field entry requirements and recommendations for the adding a rate using the "Configure SDR Log Archive" dialog. Procedure 6-4 on page 6-37 contains the procedure for retrieving the daily SDR log archive from the BitStorm Server.

Figure 6-28
Configure SDR Log Archive dialog

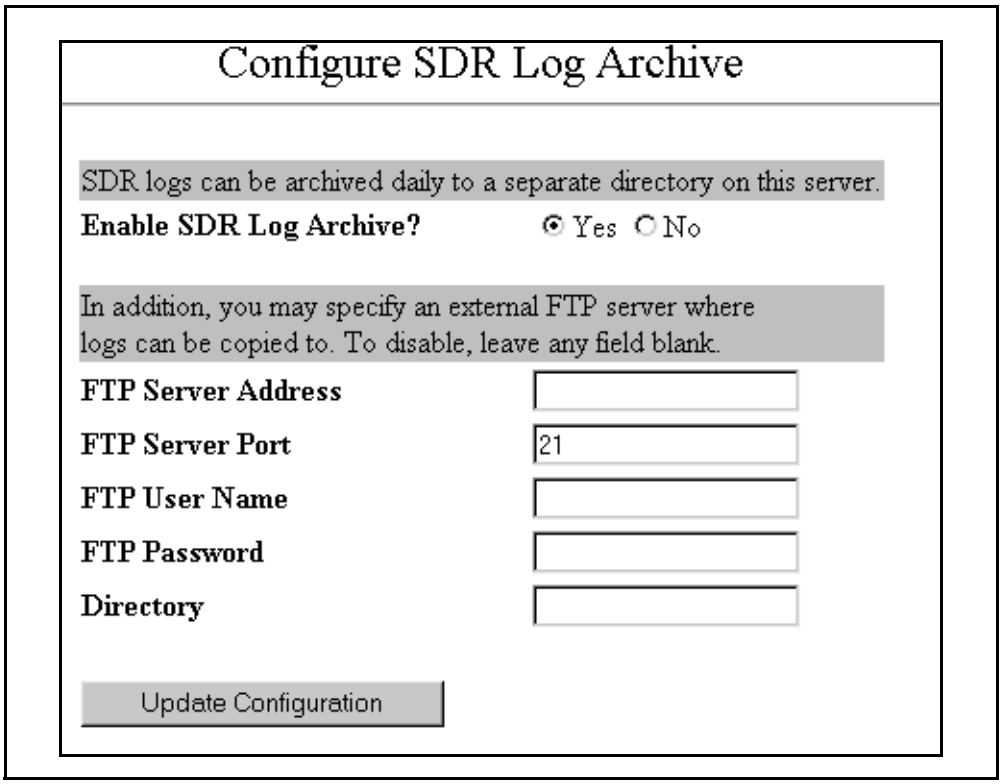

Configure SDR Log Archive
SDR logs can be archived daily to a separate directory on this server.
Enable SDR Log Archive?
Yes
No
In addition, you may specify an external FTP server where logs can be copied to. To disable, leave any field blank.
FTP Server Address
FTP Server Port
21
FTP User Name
FTP Password
Directory
Update Configuration

Table 6-8
Configure SDR Log Archive dialog field specifications

Field	Specification
Enable SDR Log Archive? (Yes/No)	Selecting "Yes" specifies that SDR logs will be archived daily to a separate directory on the BitStorm Server. These logs can be retrieved using ***ftp*** as described in Procedure 6-4 on page 6-37.
FTP Server Address	Enter the IP address of an external ***ftp*** server where YesWare can send copies of SDR logs. To disable this feature, leave this field blank.
FTP Server Port	Enter the ***ftp*** server port where YesWare can send copies of SDR logs. The default port for an external ***ftp*** server is 21.
FTP User Name	Enter the ***ftp*** user name for the YesWare to use as its login to the ***ftp*** server.
FTP Password	Enter the ***ftp*** password for YesWare to use as its login to the ***ftp*** server.
Directory	Enter the destination directory on the external ***ftp*** server where YesWare can send the copies of SDR logs.
Update Configuration	Click this button to commit the settings entered in the fields listed in this table.

View Logs and Audit Logs

The **SDRs** / View Logs and Audit Logs operations can be used to view the SDR logs in "real time," as soon as the log is recorded.

Procedure 6-4
Retrieving and deleting SDR logs using *ftp*

Use this procedure to retrieve and delete YesWare SDR logs using ***ftp***. Some service-providers may want to automate this procedure using a custom software script/program.

Requirements

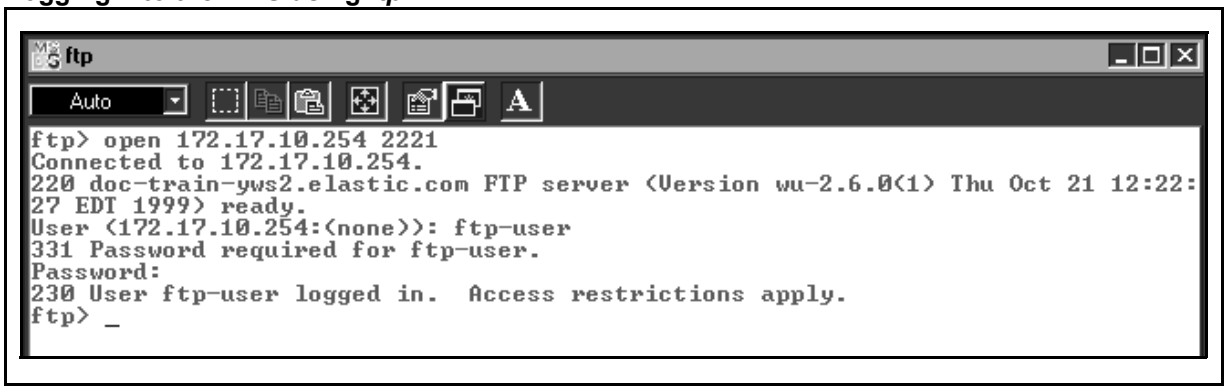
This procedure requires the following:

- basic knowledge of ***ftp*** commands
- ***ftp*** client computer with network access to the BitStorm Server

Action

Step	Action
1	Start the ***ftp*** client application.
2	Open a connection to the YWS using port **2221**. After a few moments, the The system then prompts for a **"User:"** login. ***Note:*** Note that this a different port than used in YesWare 2.3. Also, some workstation platforms (such as Windows NT) may require reconfiguration of *ftp* settings to use port 2221.
3	At the **User:** prompt, enter **ftp-user**. The system then prompts for a password.
4	At the **Password:** prompt, enter the password of the **admin** user. This is the same password as the one used in the StormTracker Configuration Manager to configure the YWS on the host network (see Chapter 3). The default **admin** password is **etherloop**. Figure 6-29 shows an example ftp-user login to a YWS at **172.17.10.254**.

Figure 6-29
Logging into the YWS using *ftp*



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Procedure 6-4 (continued)
Retrieving and deleting SDR logs using ftp

Step	Action
5	To change the ***ftp*** data transfer mode to the required binary mode, enter binary.
6	Use the ***ftp*** commands to retrieve (**get**) or delete (**del**) the SDR logs as required. The login completed in step 4 opens to the directory containing the SDR logs, so no change-directory commands are required. SDR log files are stored in the following format: [date].SDR. For example, 20000824.SDR is the SDR log for August 24, 2000. The following ***ftp*** commands are useful: • **ls**: List file contents of current directory. • **mget**: allows retrieval of multiple SDR files. For example, **mget *.SDR** will retrieve all SDR logs in the directory • **mdel**: allows deletion of multiple SDR files. • **prompt**: allows system to prompt before retrieving/deleting files. Default setting is "on," so enter this command only if you want to turn prompting off. ***Note:*** Enter **help** at the ***ftp*** command prompt for a list of all available ***ftp*** commands.

You have completed this task.

Virtual Concierge

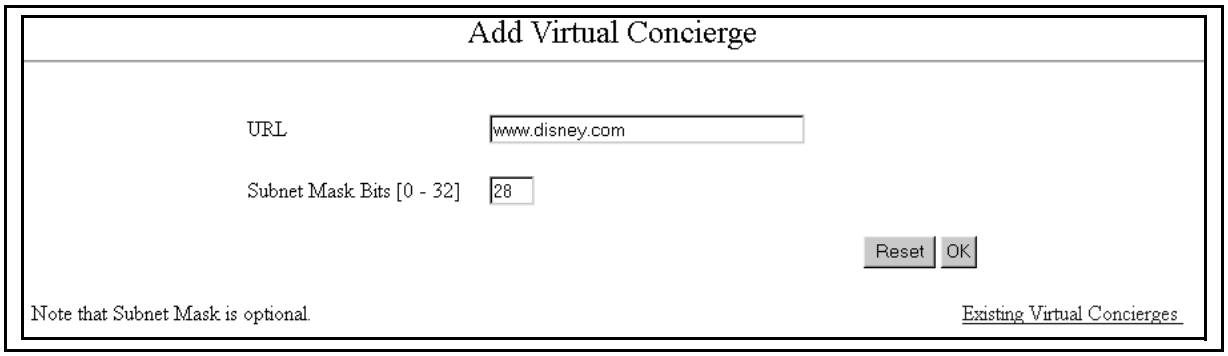
YesWare's **Virtual Concierge** function enables service providers to create a host-specific site linked to the YWS and filled with free content and advertising. The VBN visitor can browse the Virtual Concierge for free to obtain information about local restaurants and host amenities, but will have to accept the payment terms and conditions to receive Internet access outside of the specified Virtual Concierge sites.

Create

The **Virtual Concierge** / Create operation is used to enter the universal resource locator(s) (URLs) of the site(s) to which the provider is offering free access. Procedure 6-5 on page 6-41 contains a step-by-step procedure to add a Virtual Concierge site to the YesWare database.

Figure 6-30 shows the "Add Virtual Concierge" dialog launched by clicking the Create operation link.

Figure 6-30
Add Virtual Concierge dialog

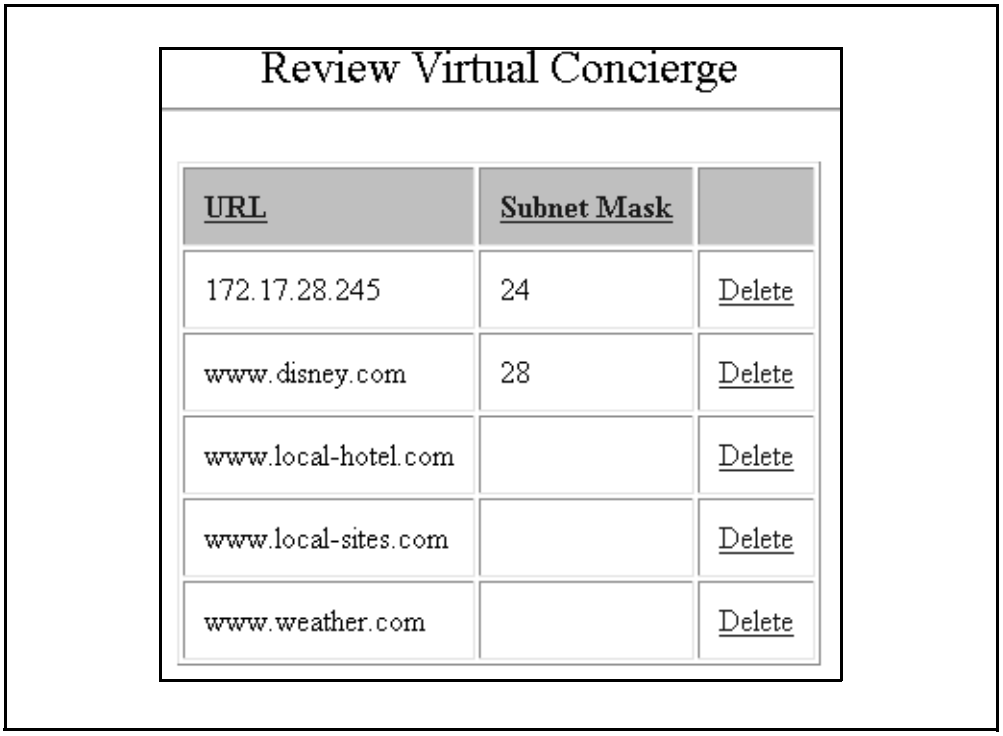


Review

The **Virtual Concierge** / Review operation is used to view the universal resource locator(s) (URLs) in the YesWare database of the site(s) to which the provider is offering free access.

Figure 6-31 shows the "Review Virtual Concierge" dialog launched by clicking the Review operation link.

Figure 6-31
Review Virtual Concierge dialog



Procedure 6-5
Configuring the Virtual Concierge

This procedure describes how to configure the YWS to support the **Virtual Concierge** feature.

Requirements

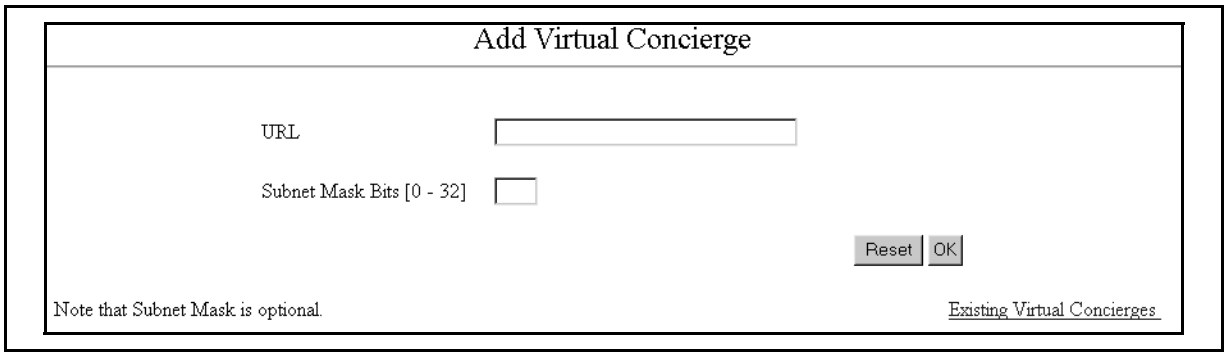
This procedure requires the following:

- Knowledge of HTML web page construction
- PC with web access to the YesWare interface
- IP address of the Virtual Concierge server with free content

Action

Step	Action
1	Browse to the *Billing* module in the YesWare software group.
2	Click the Create operation link under the **Virtual Concierge** function to launch the "Add Virtual Concierge" dialog as shown in Figure 6-32.

Figure 6-32
Add Virtual Concierge dialog



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Procedure 6-5 (continued)
Configuring the Virtual Concierge

Step	Action
3	Enter the URL(s) (IP address or URL name) of the Virtual Concierge web site that will provide the free content to YesWare visitors. Click the OK button.
4	Repeat step 3 for as many free Virtual Concierge sites as required.
5	Add an HTML link to the Virtual Concierge URL(s) on the VBN authentication page. ***Note:*** Service-providers can also simply provide the URL(s) of the free Virtual Concierge web site(s) to visitors. Visitors can then browse to the Virtual Concierge site(s) by entering the URL when the VBN authentication window appears.
6	When the visitor attempts to browse to any site other than the Virtual Concierge, the authentication page will reappear and require the visitor to authenticate before entering the Internet. Service providers may want to provide an "out-to-the-Internet" window/link on the VBN authentication page to suggest this to visitors.

You have completed this task.

Authorize.Net

The **Authorize.Net** function is used to configure the credit-card processing for YesWare VBN ports provisioned to use Credit Card Billing. All credit processing on YesWare systems is managed by the Authorize.Net Corporation. The Authorize.Net Corporation develops, markets, and sells **Authorize.Net™**, a line of products and services that authorize, process, and manage credit card and electronic check transactions over the Internet. To get started with **Authorize.Net™**, contact an **Authorize.Net™** Agent to apply for a credit card processing account. Visit the Authorize.Net Corporation web site at **http://www.authorizenet.com/**. and make arrangements to set up a merchant credit-card processing account.

Account approval typically takes approximately five days. After account approval, the **Authorize.Net™**Agent will assign a user ID and password and provide training on the system.

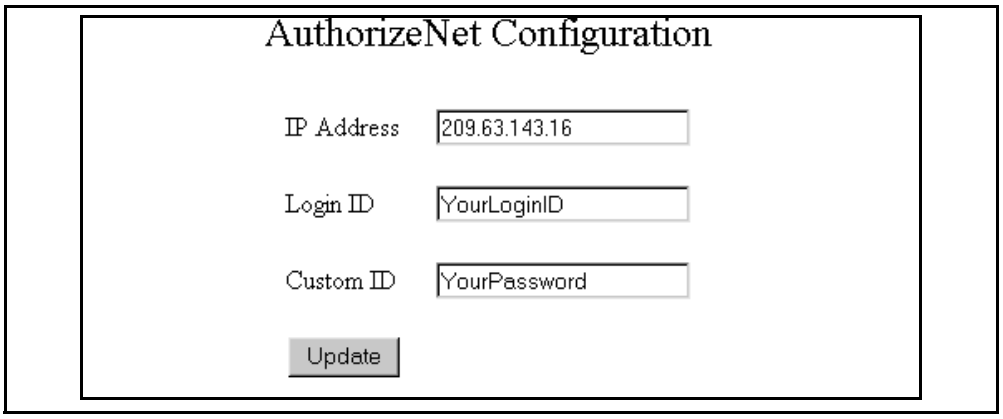
> ***Note:*** The Authorize.Net representative will indicate that the merchant needs to develop a web page that works with the Authorize.Net server. The YesWare "AuthorizeNet Configuration" dialog shown in Figure 6-33 has been developed and tested for this purpose. The YesWare administrator or manager does not need to develop a separate web page for this function.

Update

The **Authorize.Net /** Update operation is used to enter the user ID and password obtained from the **Authorize.Net™** Agent into the YesWare database. The function contains a built-in link from the YWS to the **Authorize.Net™** system server.

Figure 6-33 shows the default "AuthorizeNet Configuration" dialog launched by clicking the Update operation link. Procedure 6-6 on page 6-45 contains the steps to configure YesWare Credit Card Billing, including updating the Authorize.Net settings.

Figure 6-33
AuthorizeNet Configuration update dialog

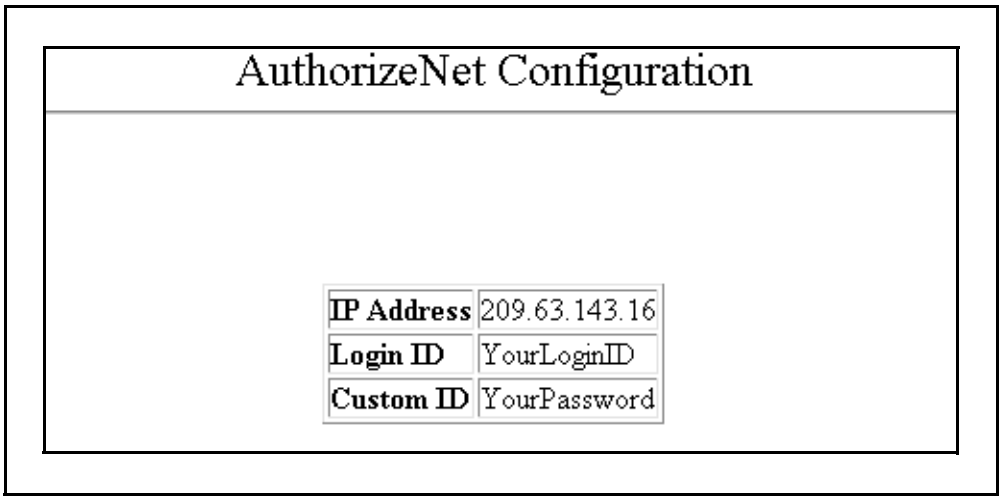


Review

The **Authorize.Net /** Review operation is used to review the current **Authorize.Net** user ID and password.

Figure 6-34 shows the default "AuthorizeNet Configuration" dialog launched by clicking the Review operation link.

Figure 6-34
AuthorizeNet Configuration review dialog



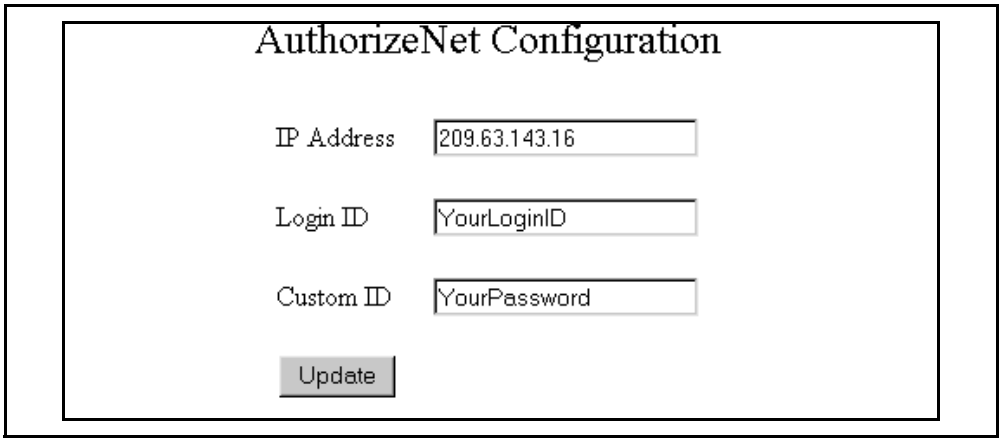
Procedure 6-6
Configuring Credit-Card Billing

Use this procedure to configure Credit Card Billing in the YesWare *Billing Manager* module.

Action

Step	Action
1	From the YesWare menu, select the *Billing* module.
2	Click the Update operation in the Authorize.Net function to launch the credit-card service selection dialog.
3	Figure 6-35 shows the default dialog used to configure the Authorize.Net credit card billing account. Enter the user ID assigned to the account by Authorize.Net in the **"Login ID:"** field of this dialog. Enter the account password in the **"Custom ID"** field. **CAUTION: Do NOT modify the "IP Address:" field.**

Figure 6-35
Authorize.Net Configuration dialog



4	Click the "Update" button to configure the YesWare database to use the **Authorize.Net™** credit-card billing merchant account. YesWare visitors using ports provisioned with the **credit** Port Use Context will now be processed through this **Authorize.Net™** account.

STOP

You have completed this task.

Using the *Switches and Ports* module

This chapter describes the *Switches and Ports* module, including the module functions, operations, dialogs, and field entry requirements. Procedures are included with step-by-step instructions for performing the more complex module operations.

Chapter topic list

This chapter includes the following topics.

Topic	See
Switch architecture and general provisioning requirements	page 7-2
Switches and Ports module functions	page 7-4
Port Configurations	page 7-5
Switches	page 7-8
Ports	page 7-11
Printers	page 7-16
Port Schedules	page 7-18

Switch architecture and general provisioning requirements

The BitStorm Server **ETH 1** interface is the "gateway" to the external network used by the EtherLoop modems and/or Ethernet switches in the VBN. The system administrator must provision the **ETH 1** interface as the YesWare switch and also as the gateway serving the VBN, as follows:

- The ETH 1 IP address that is defined in the "Network Configuration" dialog in the Administration software must be defined as the gateway address for all switches in the VBN.
- The ETH 1 network mask that is defined in the "Network Configuration" dialog in the Administration software must be defined as the subnet mask for all switches in the VBN.

VBN switch provisioning requirements

The following switch provisioning requirements apply to all VBN systems:

- EtherLoop CO modems require no entries for Parent switches or downlink ports.
- EtherLoop CO modems require that the modem MAC addresses be provisioned instead of IP addresses.
- All Ethernet-VBN switches must have assigned IP addresses. These IP addresses must be identically assigned in both the switch console interface and in YesWare.
- The BitStorm Server can be provisioned as a "YesWare" brand switch. When doing so, the IP address of the "YesWare" switch must be the same as the **ETH 1** IP address.

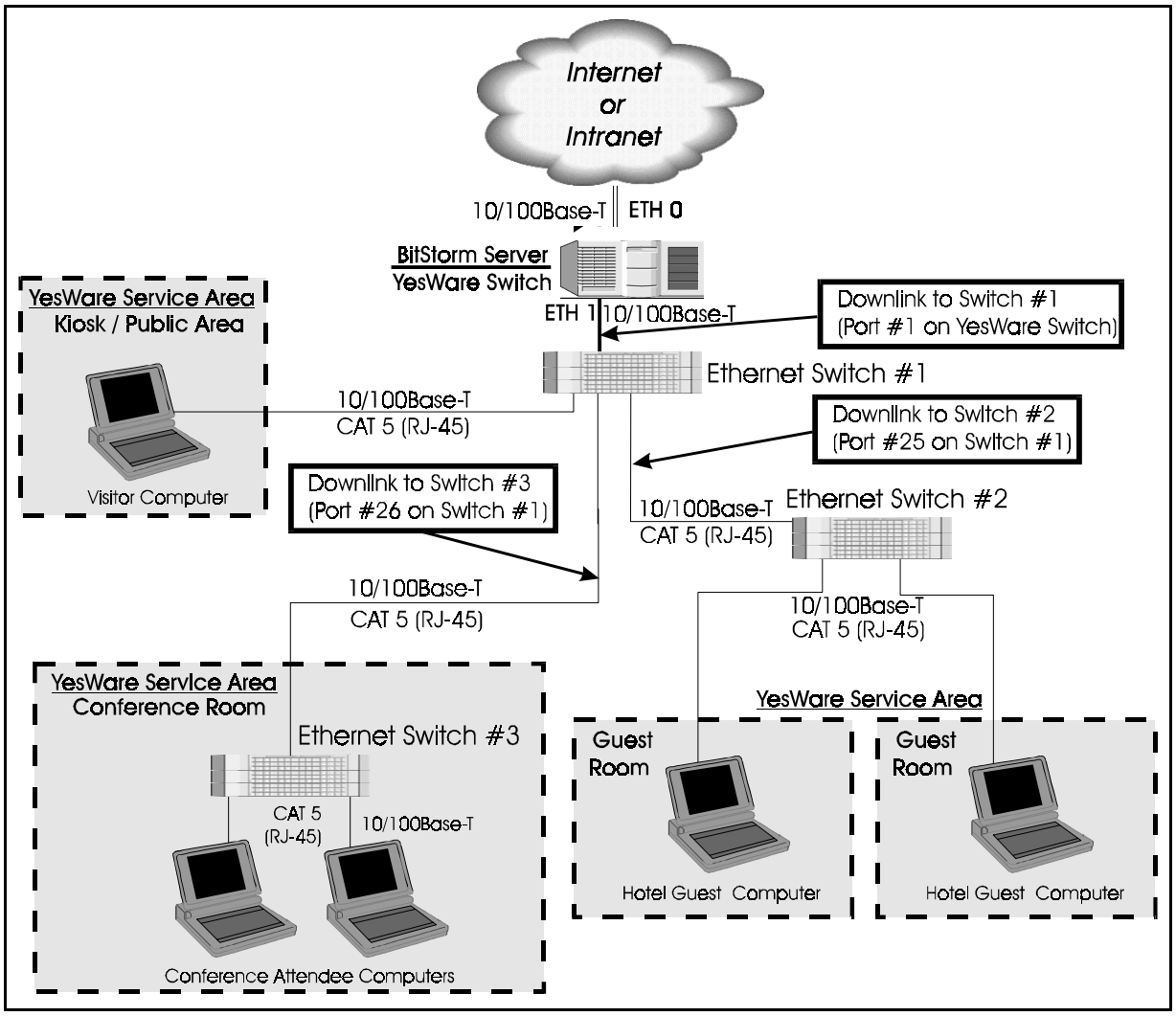
  Note: This is optional. In prior releases of YesWare, the server had to be provisioned as both a switch and the gateway for the VBN. With this release, the server only needs to be provisioned as a switch if the administrator desires to see the BitStorm Server appear in the "Verify Network Architecture" report.
- Each Ethernet-VBN switch port connecting "down" to a switch must be configured with the "downlink IP address" of the downlink switch.
- Each Ethernet-VBN switch connecting "uplink" to a Parent switch must be provisioned with the name and port of the Parent switch. A switch can have multiple Parent switches, and the system can support multiple top-level switches.
- A port provisioned as a downlink in a Parent switch must be the same port provisioned as the "Parent Switch Port" for the downlink switch.

Ethernet-VBN example

Using Figure 7-1 as an example, note the following:

- "Ethernet Switch #1" is the parent switch of both "Ethernet Switch #2" and "Ethernet Switch #3."
- The YesWare Switch (BitStorm Server **ETH 1**) is the parent of Ethernet Switch #1.
- In Port **#25** / Switch #1, the IP address of Switch #2 must be entered in the "Downlink IP Address" field of the port dialog.
- Port **#26** / Switch #1, the IP address of Switch #3 must be entered in the "Downlink IP Address" field of the port dialog.
- For port **#1** of the YesWare Switch (BitStorm Server **ETH 1**), the IP address of Ethernet Switch #1 must be entered in the "Downlink IP Address" field of the port dialog.

Figure 7-1
Ethernet-VBN transport system



Switches and Ports module functions

The rest of this chapter describes how to use the *Switches and Ports* module functions. The *Switches and Ports* module contains the functions related to creating and managing the switches and ports that provide VBN services. Table 7-1 summarizes the purpose of each of the functions in the *Switches and Ports* module. The following sections describe each function and its operations in more detail.

Table 7-1
Servers and Proxies module functions

Function name	Function purpose
Port Configurations	This function contains the operations to create and review port configurations. "Port configuations" are used to specify ports using port characteristics such as the port's "Use Context," the feature that determines the method of port service billing.
Switches	This function contains the operations to create and review the switches serving the VBN. See "Switch architecture and general provisioning requirements" on page 7-2 for the general architecture and configuration requirements of all VBN switches.
Ports	This function contains the operations to create and review ports and port groups on the VBN switches, and to enable or disable the ports.
Printers	This function contains the operations to create and review the the printers used to provide YesWare VBN printing services. Chapter 13, "Providing YesWare VBN printing services" describes the complete requirements for setting up YesWare VBN printing services.
Port Schedules	This function contains the operations to create and review the port schedules. Port schedules are mainly used with the **Static IP Provisioning** function in the *Provisioning Wizard* module to offer conference services and Conference Room Billing. Chapter 12, "YesWare Static IP configuration and port scheduling" describes the complete requirements for setting up and providing static IP addresses for conference services.

Port Configurations

The **Port Configurations** function contains the operations to create and review port configurations used to specify and apply port characteristics.

Create

Clicking the Create operation link launches the "Add Port Configuration" dialog. This dialog is used to create the port configuation which can later be applied to ports and port groups. Figure 7-2 shows the default "Add Port Configuration" dialog. Table 7-2 on page 7-6 describes the field entry specifications and information requirements of this dialog.

Figure 7-2
Add Port Configuration dialog

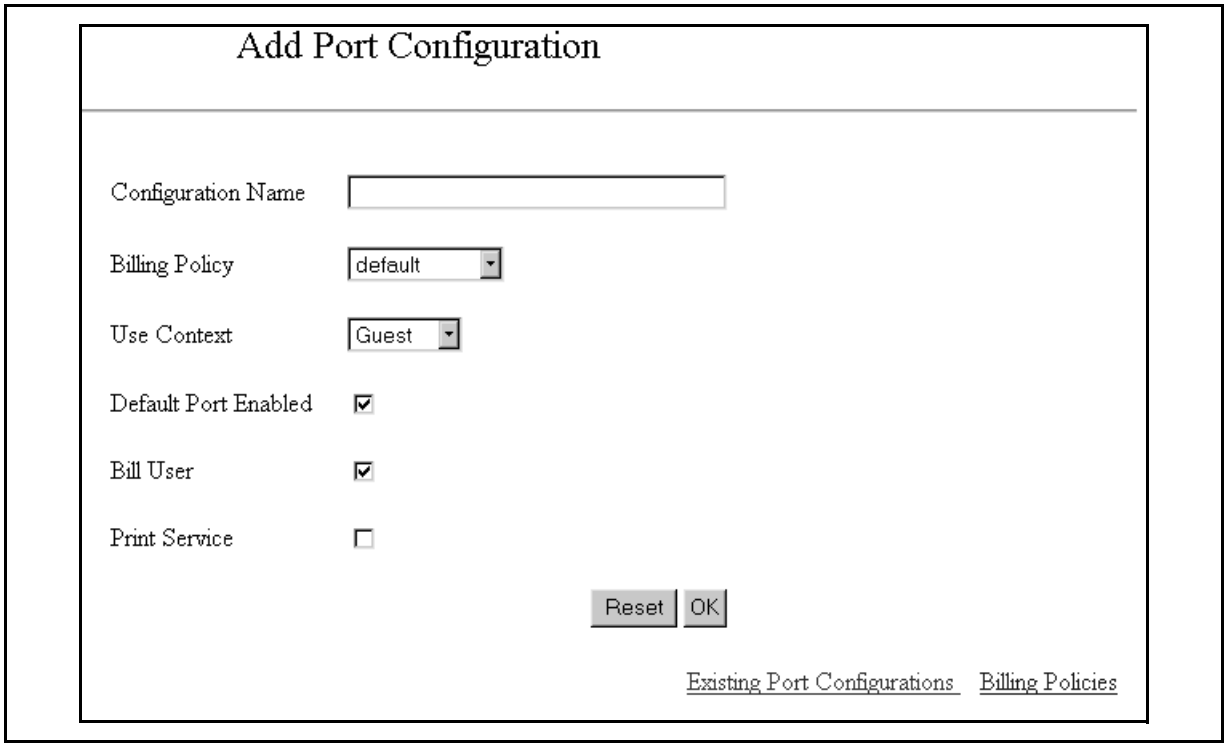


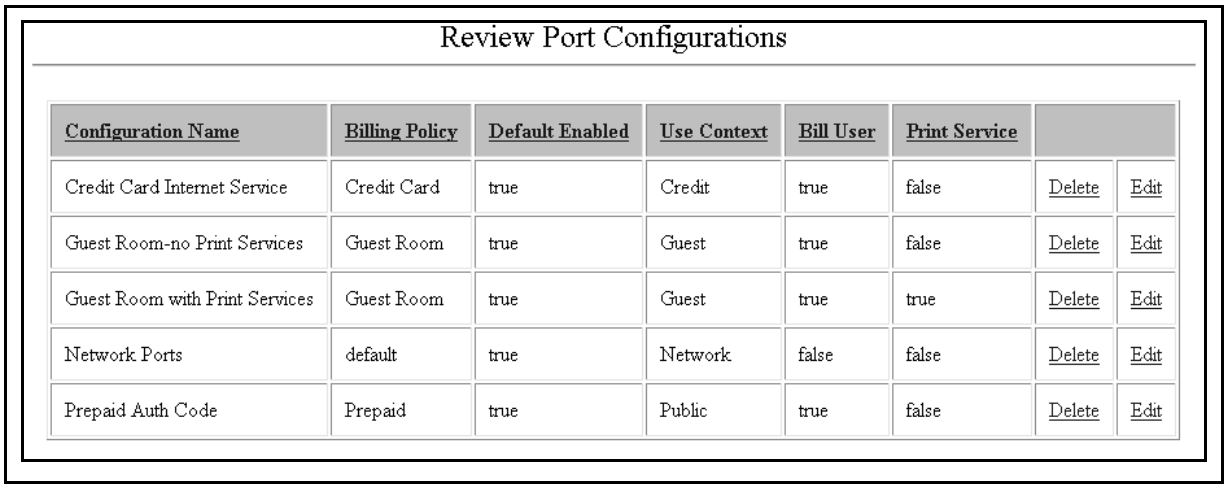
Table 7-2
Add Port Configuration dialog field specifications

Field	Specification
Configuration Name	Enter the name of the port configuration. Configurations should be named for easy identification in terms of the billing method (Room Billing, Prepaid/Authorization Code Billing, and Credit Card Billing). See Figure 7-3 on page 7-7 for example port configuration names.
Billing Policy	Select the Billing Policy to use for this port configuration. Specific Billing Policies must be provisioned using the **Billing Policies** function in the *Billing* module. Otherwise, the port configuration must use the "default" billing policy.
Use Context	Select the Use Context for the ports in this configuration. Port Use Contexts include the following: • **Network:** Used for non-billable ports that are only used to transport VBN traffic. Network ports include the switch "downlink" ports and EtherLoop "bookend" modem pairs use as backhaul. • **Public:** Used for Prepaid/Authorization Code Billing ports. Requires visitors to enter an Auth Code to receive service. • **Guest:** Used for Room Billing ports. Requires visitors to charge YesWare service to the visitor's room. • **Credit:** Used for Credit Card Billing ports. Requires visitors to charge YesWare service to the visitor's credit card. A minimum of one port configuration should be provisioned for each different port Use Context in the system. See Figure 7-3 on page 7-7 for an example.
Default Port Enabled	Click this checkbox if the desired default condition of the ports in this configuration is "enabled." De-select this checkbox if the desired default condition of the ports in this configuration is "disabled."
Bill User	Click this checkbox if the users in this port configuration are billed for YesWare services. "Network" port configurations should have this checkbox unchecked.
Print Service	Click this checkbox if the users in this port configuration will have access to YesWare printing services. "Network" port configurations should have this checkbox unchecked.

Review

Clicking the Review operation link launches the "Review Port Configurations" dialog. This dialog is used to review, edit, and delete port configurations previously provisioned using the "Add Port Configuration" dialog. Figure 7-3 shows an example "Review Port Configurations" dialog.

Figure 7-3
Review Port Configurations dialog



Switches

The **Switches** function contains the operations to create and review the switches serving the VBN. See “Switch architecture and general provisioning requirements” on page 7-2 for the general architecture and configuration requirements of all VBN switches.

Create

Clicking the Create operation link launches the "Add Switch" dialog. This dialog is used to configure the CO modems and Ethernet switches in the YesWare VBN system. Figure 7-4 shows the default "Add Switch" dialog. Table 7-3 on page 7-9 describes the field entry specifications and information requirements of this dialog.

Figure 7-4
Add Switch dialog

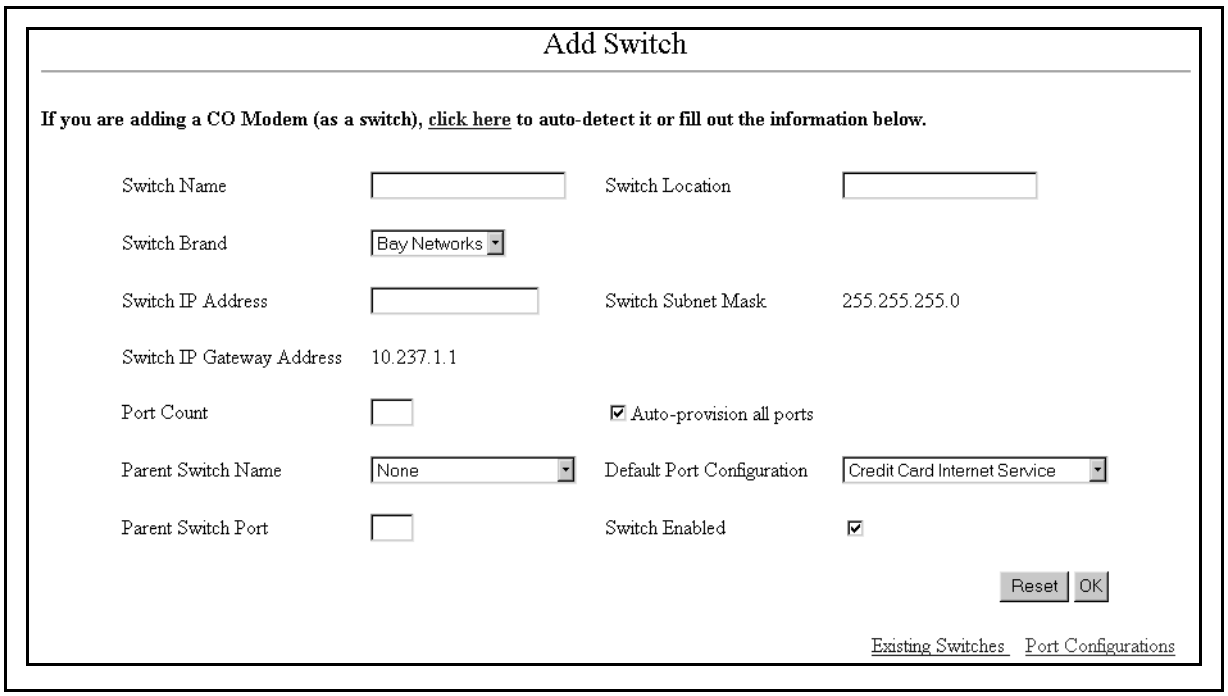


Table 7-3
Add Switch dialog field specifications

Field	Specification
If you are adding a CO Modem (as a switch), click here . . .	Clicking the "**here**" link launches the "Unprovisioned CO Modems" table. This table lists all unprovisioned CO modems frrom the StormTracker-Site Manager database (see ***Note***), and lists the MAC address, type, location, and number of ports for each CO modem. Clicking the **MAC Address** for a modem returns to the "Add Switch" dialog with the CO modem information auto-filled in the fields. ***Note:*** This database is created using the Discover Modems operation in the *Database* module of the StormTracker-Site Manager software group.
Switch Name	Enter the name assigned to the switch in the VBN system.
Switch Location	Enter the location name assigned to the switch in the VBN system.
Switch Brand	Select the brand of switch being provisioned. Available switch brand options at this time include the following: **Bay Networks || Cisco || CTMS || default || Elmo-120 (CO modem) || Elmo-8 (CO modem) || HP4000 || YesWare (BitStorm Server ETH 1)** Other switches comparable to the ones listed may be acceptable.
Switch IP Address	Enter the IP address (for Ethernet switches) or MAC address (for CO modems) assigned to the switch in the VBN system. The Ethernet switch IP addresses must exactly match the IP address configured in the Ethernet switch's OEM interface.
Switch Subnet Mask	This field displays the Subnet mask used by VBN switches, which matches the BitStorm Server **ETH 1** subnet mask. The default Switch Subnet Mask is **255.255.255.0.**
Switch IP Gateway Address	This field displays the Gateway IP address used by VBN switches, which matches the BitStorm Server **ETH 1** IP address. The default Switch IP Gateway Address is **10.237.1.1**
Port Count	Enter the number of ports supported by the VBN switch.
Auto-provision all ports	Select this checkbox to automatically create the port table with the switch's information for each port already filled in. The port table is created when the "OK" button is clicked to add the switch. This action does not enable all the ports on the switch. Ports must be enabled using the appropriate operation(s) in the **Ports** function.
Parent Switch Name	Select the name of the Parent switch (if any) for the switch.
Default Port Configuration	Select the port configuration to be used by default on this switch. The configuration selected here can be overridden in the individual port dialogs.
Parent Switch Port	Select the port used on the Parent switch (if any) by the switch.
Switch Enabled	This checkbox must be selected for the switch to provide service.

Review

Clicking the Review operation link launches the "Review Switches" dialog. This dialog is used to review, edit, and delete the switches previously provisioned using the "Add Switch" dialog. Figure 7-5 shows an example "Review Switches" dialog.

Figure 7-5
Review Switches dialog

Review Switches

Switch Name	Switch IP Address	Switch Gateway Address	Switch Subnet IP Address	Port Count	Parent Switch Name	Parent Port Number	Switch Location	Enabled	Default Port Configuration Name		
Ethernet VBN Switch 24	10.240.1.5	10.237.1.1	255.255.255.0	24	Ethernet VBN Switch 22	4	3rd Floor	true	Credit Card Internet Service	Delete	Edit
Ethernet VBN Switch 22	10.240.1.2	10.237.1.1	255.255.255.0	24	None	0	1st Floor	true	Guest Room with Print Services	Delete	Edit

Ports

The **Port** function contains the operations to create and review ports and port groups on the VBN switches, and to enable or disable the ports.

Create

Clicking the Create operation link launches the "Add Port" dialog. This dialog is used to add ports to the CO modems and Ethernet switches already provisioned in the YesWare VBN system. Figure 7-6 shows the "Add Port" dialog. Table 7-4 on page 7-12 describes the field entry specifications and information requirements of this dialog.

> ***Note:*** This dialog is not required if the "Auto-provision all ports" option was selected in the "Add Switch" dialog when the switch was created (see Table 7-3 on page 7-9). In this case, use the **Edit** link in the "Review Ports" dialog (see Figure 7-7 on page 7-13) to modify the port(s) using the "Edit Port" dialog. The field entry specifications for the "Edit Port" dialog are the same as those for the "Add Port" dialog described in Table 7-4 on page 7-12.

Figure 7-6
Add Port dialog

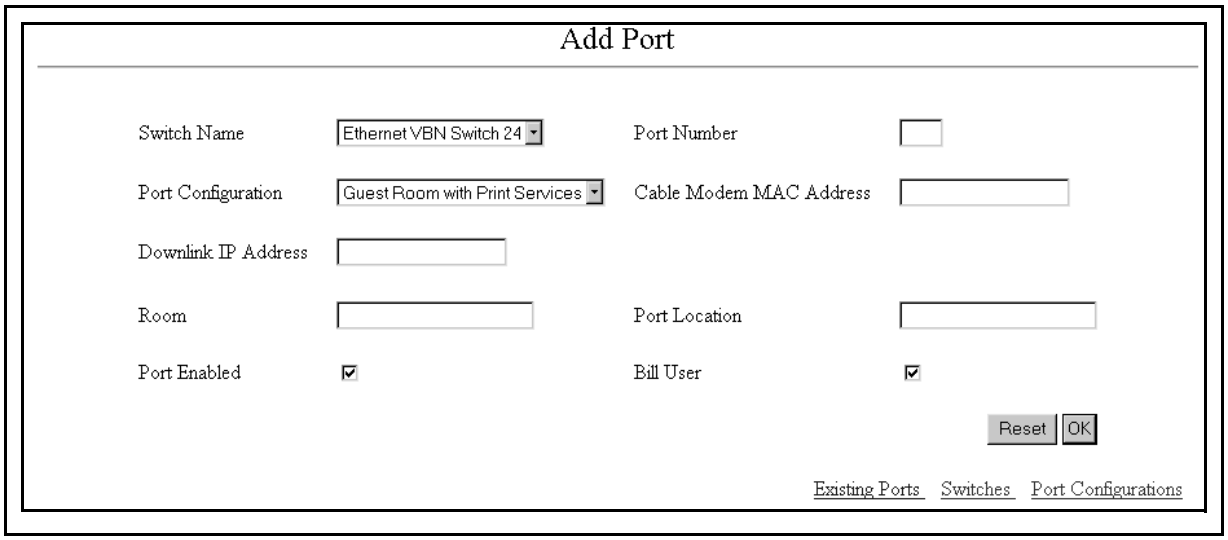


Table 7-4
Add Port/Edit Port dialog field specifications

Field	Specification
Switch Name	Select the switch on which the port resides. If no switches have been provisioned, the pulldown list will be blank.
Port Number	Enter the number of the port on the switch.
Port Configuration	Select the port configuration the system should assign to the port. "Downlink" ports must have a "network" port configuration. That is, the port configuration assigned here must have a "Network" port Use Context assigned using the Port Configuration function. See Table 7-2 on page 7-6 for more information.
Cable Modem MAC Address	This feature is not active in this release of YesWare.
Downlink IP Address	Enter the IP address of a downlink "child" switch. See “Switch architecture and general provisioning requirements” on page 7-2 for more information.
Room	This field displays the Gateway IP address used by VBN switches, which matches the BitStorm Server **ETH 1** IP address. The default Switch IP Gateway Address is **10.237.1.1**
Port Location	Enter the location of the port for host site billing purposes.
Port Enabled	Click this checkbox if the desired condition of this port is "enabled." De-select this checkbox if the desired condition of this port is "disabled." This checkbox must be selected for the port to provide service.
Bill User	Click this checkbox if the users in this port configuration are billed for YesWare services. "Network" ports should have this checkbox unchecked.

Review

Clicking the Review operation link launches the "Review Ports" dialog. This dialog is used to review, edit, and delete the ports previously provisioned using the "Add Port" dialog. Figure 7-7 shows an example "Review Ports" dialog.

Figure 7-7
Review Ports dialog

Review Ports

Switch Name	Port Number	Port Configuration Name	Downlink IP Address	Enabled	Bill User	Location	Room	Cable Modem MAC Address		
Ethernet VBN Switch 22	1	Guest Room with Print Services		true	true	1st Floor/1	Guest 101		Delete	Edit
Ethernet VBN Switch 22	2	Guest Room with Print Services		true	true	1st Floor/2	Guest 102		Delete	Edit
Ethernet VBN Switch 22	3	Guest Room with Print Services		true	true	1st Floor/3	Guest 103		Delete	Edit
Ethernet VBN Switch 22	4	Guest Room with Print Services	10.240.1.5	true	false	1st Floor/4	1000		Delete	Edit

Create Group

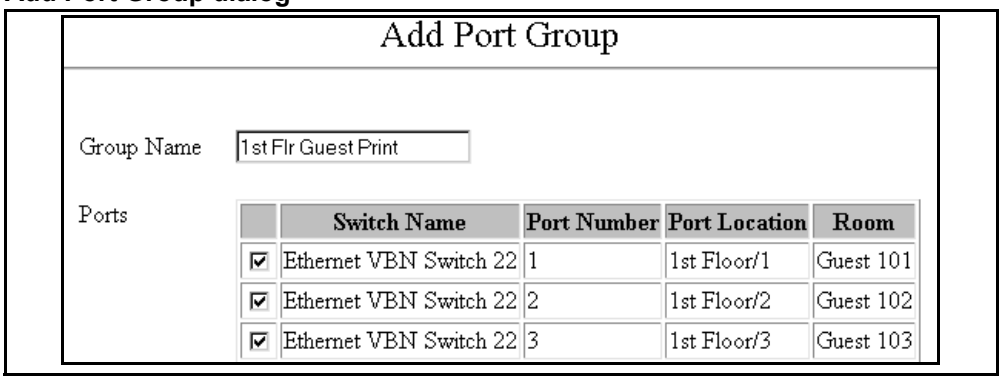
Clicking the Create Group operation link launches the "Add Port Group" dialog. This dialog is used to create the port groups from the ports provisioned in the YesWare database. The "Ports" table in this dialog lists the following for all switches and all ports provisioned in YesWare:

- Switch Name
- Port Number
- Port Location
- Room (from port dialog)

Creating a group using the "Add Port Group" dialog

To create a port group, click in the boxes in the left-most column of the "Ports" table to select all the ports in the group, and click the "OK" button at the bottom of the dialog. Groups can be created based on port location, billing method, special features such as print services, or other criteria based on the host site requirements. Figure 7-2 shows the "Add Port Group" dialog with three ports selected for the "1st Flr Guest Print" group.

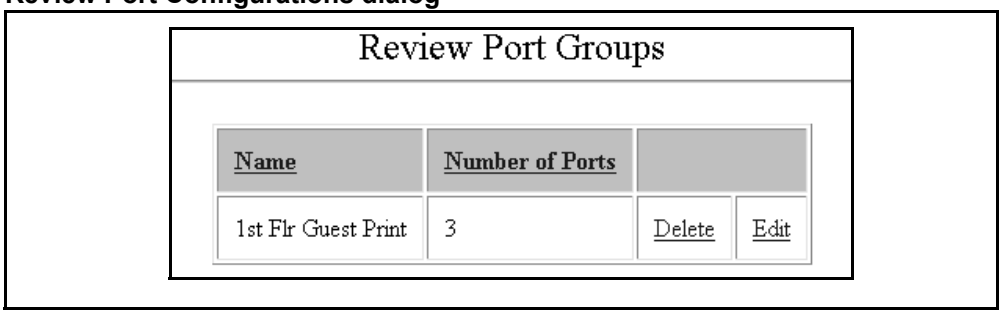
Figure 7-8
Add Port Group dialog



Review Groups

Clicking the Review operation link launches the "Review Port Group" dialog. This dialog is used to review, edit, and delete port groups previously provisioned using the "Add Port Group" dialog. Figure 7-3 shows an example "Review Port Groups" dialog.

Figure 7-9
Review Port Configurations dialog



Enable/Disable

Clicking the Enable/Disable operation link launches the "Enable/Disable Ports" dialog. This dialog offers the options to "Enable all ports," "Disable all ports," and "Enable/disable ports individually." The table in the "Enable/Disable Ports" dialog lists the following for all switches and all ports provisioned in YesWare:

- Enable/Disable (En | Dis | Ignore)
- Switch Name
- Port Number
- Port Location
- Room (from port dialog)

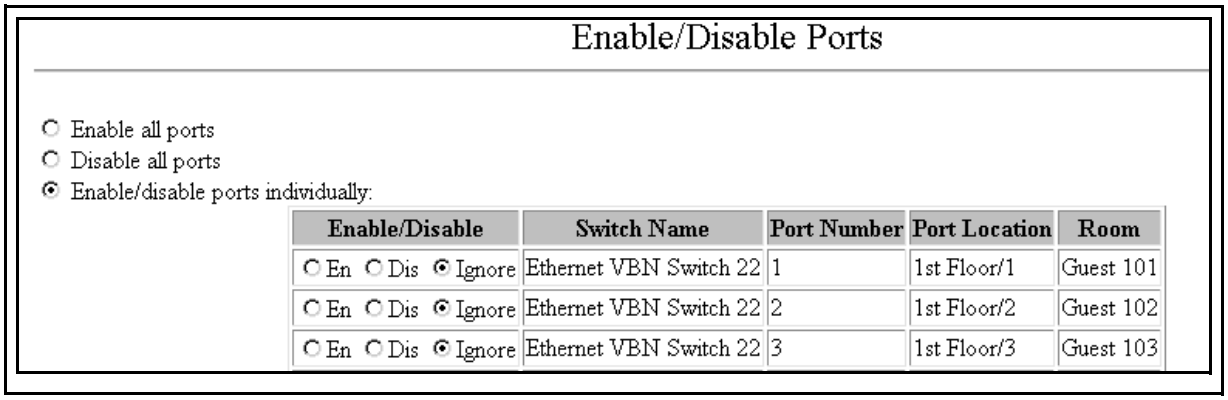
Using the "Enable/Disable Ports" dialog

Select the desired setting using the radio buttons in the left side of the dialog. If "Enable/Disable ports individually" is selected, also select the desired setting for each port using the radio buttons in the left-most column of the "Enable/Disable Ports" table. When finished, click the "Update Ports" button at the bottom of the dialog, and the system displays the "Review Ports" dialog with the new snable/disable settings.

> ***Note:*** This feature does not impact the "Bill User" checkbox in the port dialog. The "Bill User" must be checked or unchecked separately.

Figure 7-2 shows three ports in the ""Enable/Disable Ports" dialog. The "Update Ports" button at the bottom of the dialog is not shown.

Figure 7-10
Add Port Group dialog



Printers

The **Printers** function contains the operations to create and review the network printers used to provide YesWare VBN printing services. Chapter 13, “Providing YesWare VBN printing services” describes the complete requirements for setting up YesWare VBN printing services.

Create

Clicking the Create operation link launches the "Add Printer" dialog. This dialog is used to configure the visitor printers in the YesWare VBN system. Figure 7-11 shows the default "Add Printer" dialog. Table 7-5 on page 7-17 describes the field entry specifications and information requirements of this dialog.

Figure 7-11
Add Printer dialog

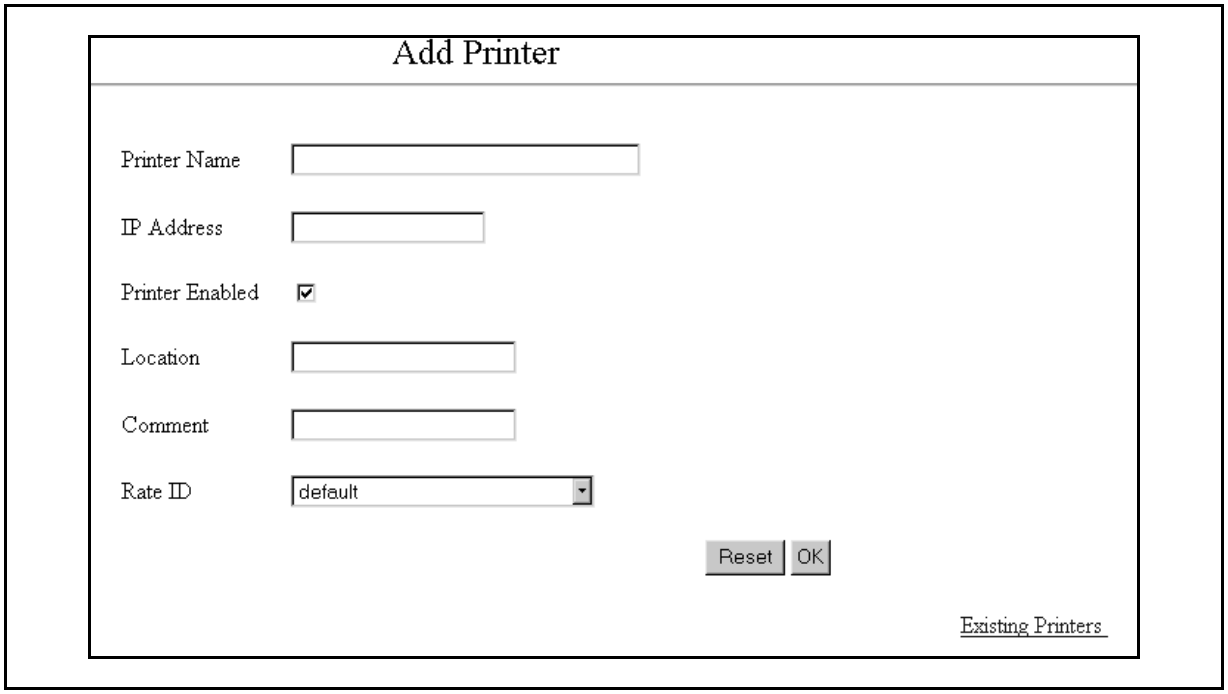


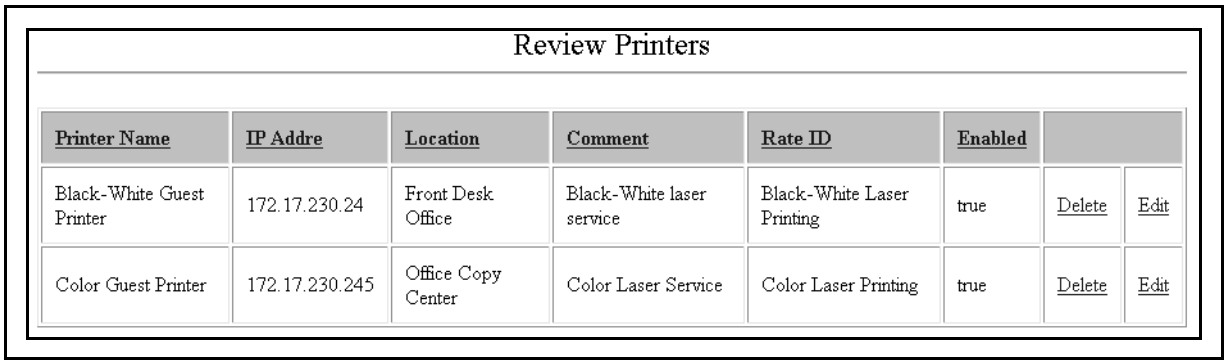
Table 7-5
Add Printer dialog field specifications

Field	Specification
Printer Name	Enter the name assigned to the printer in the VBN system.
IP Address	Enter the network IP address assigned to the printer. The IP addresses entered here must exactly match the IP address configured in the local network.
Printer Enabled	This checkbox must be selected for the printer to provide service.
Location	Enter the location name assigned to the printer in the VBN system.
Rate ID	Select the Rate ID for printing services. Rates for postscript printers are charged on a per-page basis. Rates for PCL printers are charged on a per-print-job basis.

Review

Clicking the Review operation link launches the "Review Printers" dialog. This dialog is used to review, edit, and delete the printers previously provisioned using the "Add Printer" dialog. Figure 7-12 shows an example "Review Printers" dialog.

Figure 7-12
Review Printers dialog



Port Schedules

The **Port Schedules** function contains the operations to create and review the port schedules. Port schedules are mainly used with the **Static IP Provisioning** function in the *Provisioning Wizard* module to offer conference services and Conference Room Billing. Chapter 12, "YesWare Static IP configuration and port scheduling" describes the complete requirements for setting up and providing static IP addresses for conference services.

Create

Clicking the Create operation link launches the "Add Port Schedule" dialog. This dialog is used to generate port schedules in the YesWare VBN system. Figure 7-13 shows the "Add Port Schedule" dialog. Table 7-6 on page 7-19 describes the field entry specifications and information requirements of this dialog.

Creating a port schedule using the "Add Port Schedule" dialog

See Chapter 12, "YesWare Static IP configuration and port scheduling."

Figure 7-13
Add Port Schedule dialog

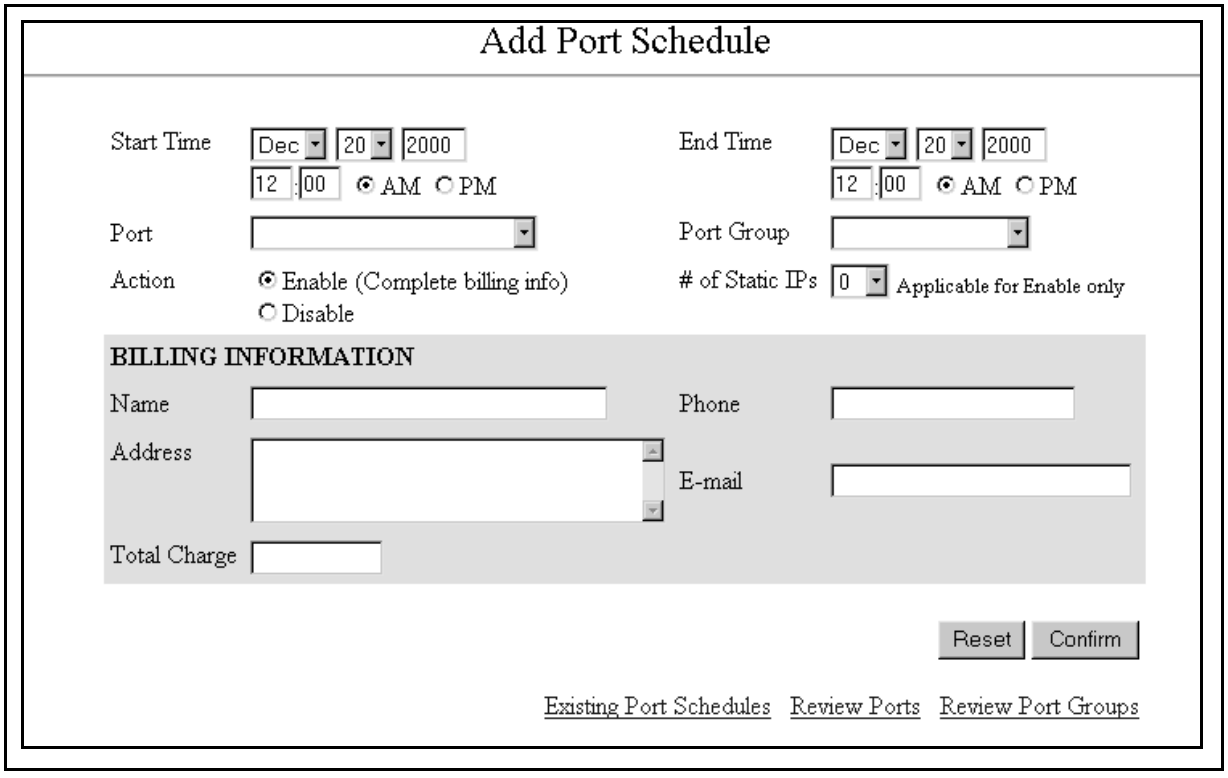


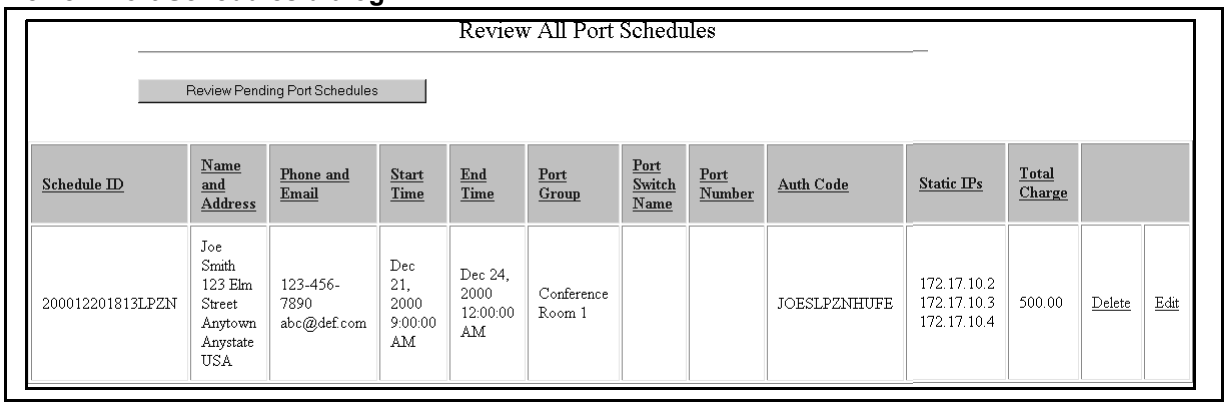
Table 7-6
Add Printer dialog field specifications

Field	Specification
Start Time	Enter the day, month, year and time for the start of the port schedule.
End Time	Enter the day, month, year and time for the end of the port schedule.
Port	Select the port to apply the schedule. If this field is selected, do not select a group from the "Port Group" field.
Port Group	Select the Port Group to apply the schedule. If this field is selected, do not select a port from the "Port" field.
Action	Select the action to apply during the port schedule (enable or disable the port. If "Enable" is selected, the "BILLING INFORMATION" fields must be completed.
# of Static IPs	If static IP addresses are being sold to the customer, use this field to select the number of IP addresses to be provided. To use this feature, the IP addresses must be generated using the **Static IP Provisioning** function in the *Provisioning Wizard* module. This feature is applicable only for the "Enable" Action.
BILLING INFORMATION	Enter the customer billing information, including the following: Customer Name || Phone number || Billing address || E-mail address* *E-mail address is optional.
Total Charge	Enter the total amount to be charged for the scheduled service.
Confirm	Click the "Confirm" button to generate the port schedule and receipt.

Review

Clicking the Review operation link launches the "Review Port Schedules" dialog. This dialog is used to review, edit, and delete the port schedules previously provisioned using the "Add Port Schedule" dialog. Figure 7-14 shows an example "Review Port Schedules" dialog.

Figure 7-14
Review Port Schedules dialog



Using the *Servers and Proxies* module

This chapter describes the *Servers and Proxies* module, including the module functions, operations, dialogs, and field entry requirements. Procedures are included with step-by-step instructions for performing the more complex module operations.

Chapter Topic

This chapter includes the following topics.

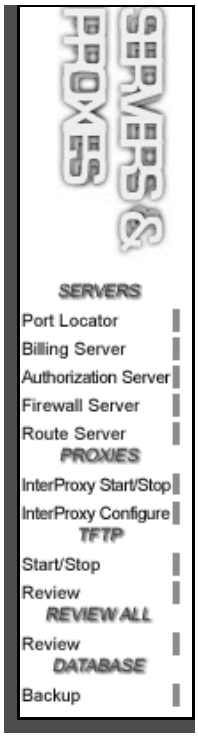
Topic	See
Servers and Proxies module functions	page 8-2
Servers	page 8-3
Proxies	page 8-9
TFTP	page 8-14
Review All	page 8-15
Database	page 8-16

Chapter task list

This chapter includes the following task.

Procedure	Task	See
8-1	Backing up and restoring the YesWare databases and configuration files	page 8-17

Servers and Proxies module functions



The *Servers and Proxies* module contains the functions related to internal YesWare server and proxy processes, and a database backup utility. Table 8-1 summarizes the purpose of each of the functions in the *Servers and Proxies* module. The following sections describe each function and its operations in more detail.

Table 8-1
Servers and Proxies module functions

Function name	Function purpose
Servers	This function contains the server identifications (Server IDs) for the internal servers used by YesWare java server pages. Each operation dialog contains a status indicator (On/Off) for the internal server, and a button to reboot the BitStorm Server.
Proxies	This function contains the operations to configure and start/stop the InterProxy routing application.
TFTP	This function contains the operations to start/stop and review the status of the YesWare trivial file transfer protocol (TFTP) server. Except when actively transferring files, this server should be turned off.
Review All	This function contains an operation to review the status of all internal servers.
Database	This function contains an operation to backup and restore the YesWare database and configuration files.

Servers

The operation links in the **Servers** function launch dialogs that display the ID and status of the internal servers used by YesWare java server pages. The operation dialogs for these servers are used for troubleshooting YesWare problems, and are for informational purposes.

> ***CAUTION - Do NOT modify Servers operation dialogs***
> The YesWare system manager/administrator should not attempt to modify any of the information in the **Servers** operation dialogs. To restart one of the internal servers, the only recommended field action is to completely reboot the Bitstorm Server. If this action does not restart the internal servers, the system manager/administrator should contact Elastic Networks for technical support or a replacement BitStorm Server.

The operations/servers contained in the **Servers** function include the following:

- Port Locator
- Billing Server
- Authorization Server
- Firewall Server
- Route Server

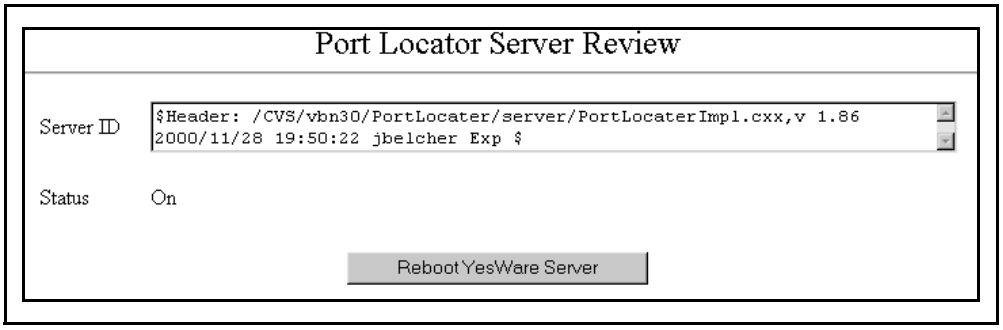
When the BitStorm Server and YesWare are operating normally, all of the servers in the **Servers** function are "on." Various system problems will appear when one or more of these servers is "off." The following sections describe each of these servers and their operation dialogs, and some possible system consequences that can indicate a server is not functioning properly.

Port Locator

Clicking the Port Locator operation link launches the "Port Locator Server Review" dialog. The Port Locator Server controls the processes for detecting ports and managing the port database. The port locator maps a physical location such as a hotel room to a port on a YesWare switch (Ethernet or EtherLoop).

Figure 8-1 shows the "Port Locator Server Review" dialog.

Figure 8-1
Port Locator Server Review dialog



Port Locator Server problems

If the Port Locator Server is having problems or is shut down, the StormTracker-Site Manager and/or YesWare will not be able to detect EtherLoop modems installed in the system or will "lose" ports provisioned in the YesWare database.

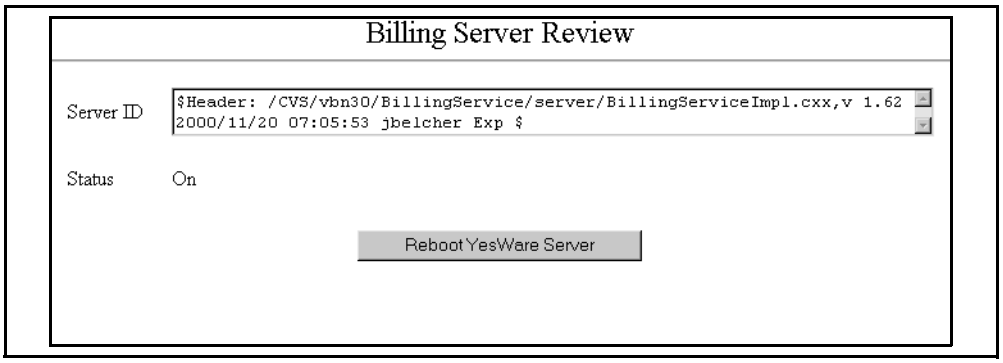
Restarting the Port Locator Server

If the "Port Locator Server Review" dialog indicates that the Port Locator Server is "off," click the "Reboot YesWare Server" button to restart the BitStorm Server. All YesWare services will be down while the BitStorm Server reboots (about 5 minutes). After the BitStorm Server restarts, browse to the Port Locator Server Review dialog and verify that the server is "on." If the Port Locator Server does not restart, contact Elastic Networks Technical Assistance and Support (TAS).

Billing Server

Clicking the Billing Server operation link launches the "Billing Server Review" dialog. The Billing Server controls the internal processes for managing billing transactions generated by YesWare visitors. Figure 8-2 shows the "Billing Server Review" dialog.

Figure 8-2
Billing Server Review dialog



Billing Server problems

If the Billing Server is having problems or is shut down, YesWare will not send records to the PMS or send credit card transactions to the Internet credit processing company.

Restarting the Billing Server

If the "Billing Server Review" dialog indicates that the Billing Server is "off," click the "Reboot YesWare Server" button to restart the BitStorm Server. All YesWare services will be down while the BitStorm Server reboots (about 5 minutes). After the BitStorm Server restarts, browse to the "Billing Server Review" dialog and verify that the server is "on." If the Billing Server does not restart, contact Elastic Networks Technical Assistance and Support (TAS).

Authorization Server

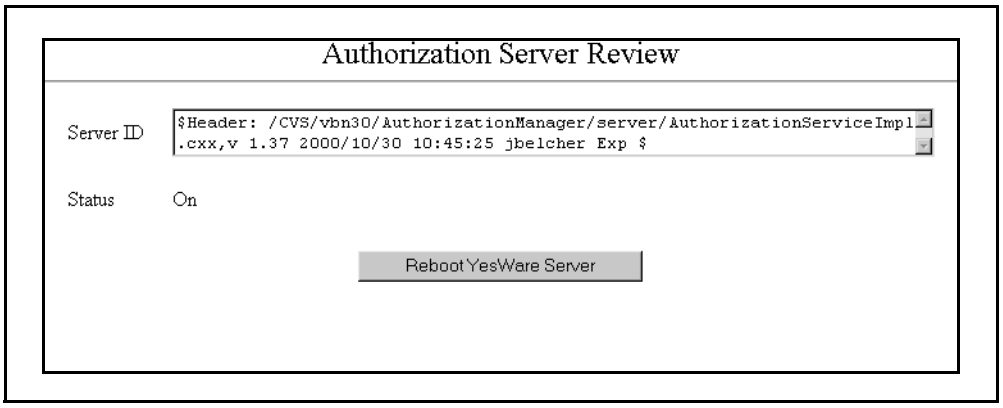
Clicking the Authorization Server operation link launches the "Authorization Server Review" dialog. The Authorization Server controls the processes that authenticate new visitors into the system for ports provisioned to use "bill-to-room" or Authorization Codes.

> ***Note:*** Credit-card port authorization is managed using a separate process and a third-party credit-card processing company (**Authorize.Net**).

The Authorization Server tracks the billing information for visitors and verifies that the visitor is within the firewall rules. If the visitor is within the firewall rules, the Authorization Server directs the visitor to a welcome and/or splash screen. If the visitor is not within the firewall rules, the Authorization Server directs the visitor to a challenge page in which the visitor can enter a valid Authorization Code or bill YesWare service to the visitor room.

Figure 8-3 shows the "Authorization Server Review" dialog.

Figure 8-3
Authorization Server Review dialog



Authorization Server problems

If the Authorization Server is having problems or is shut down, YesWare will not generate and track Authorization Codes, and/or will not deny access to invalid codes or users without proper billing information.

Restarting the Authorization Server

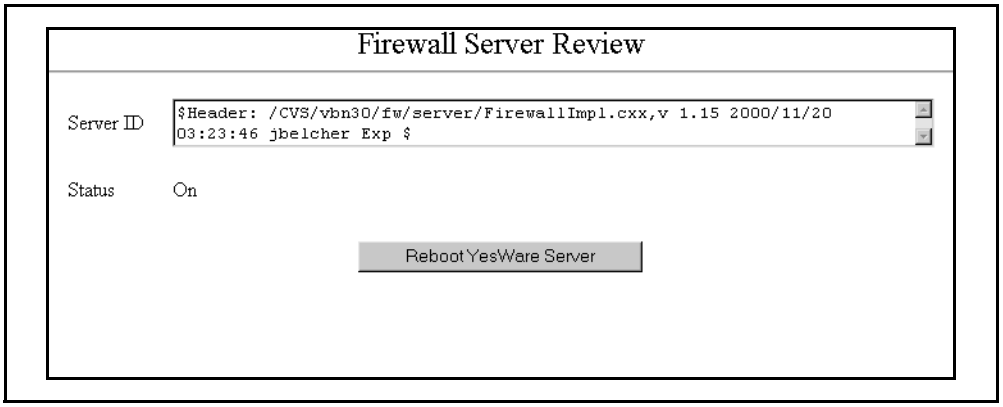
If the "Authorization Server Review" dialog indicates that the Authorization Server is "off," click the "Reboot YesWare Server" button to restart the BitStorm Server. All YesWare services will be down while the BitStorm Server reboots (about 5 minutes). After the BitStorm Server restarts, browse to the "Authorization Server Review" dialog and verify that the server is "on." If the Authorization Server does not restart, contact Elastic Networks Technical Assistance and Support (TAS).

Firewall Server

Clicking the Firewall Server operation link launches the "Firewall Server Review" dialog. The Firewall Server controls the internal processes for setting firewall rules such as the rules for adding and deleting user IP addresses from the firewall based on the user's billing information.

Figure 8-4 shows the "Firewall Server Review" dialog.

Figure 8-4
Firewall Server Review dialog



Firewall Server problems

If the Firewall Server is having problems or is shut down, YesWare will not remove users IP addresses from the system or will not pass any user IP addresses forward.

Restarting the Firewall Server

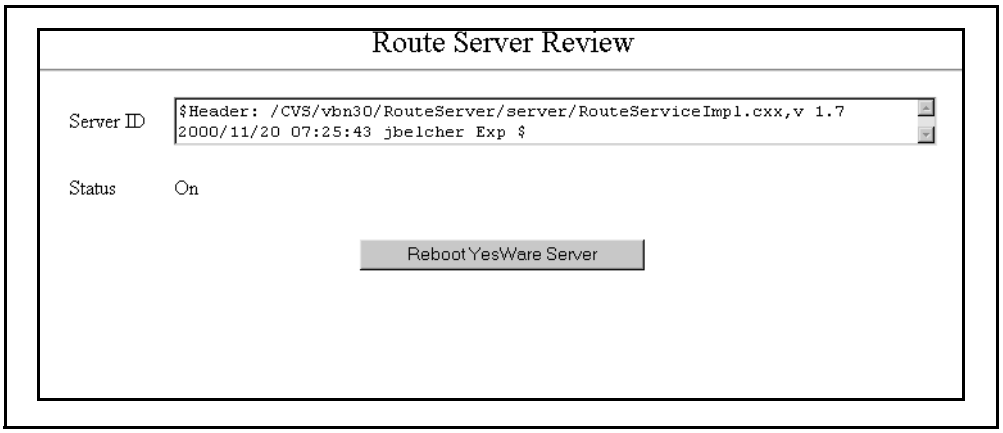
If the "Firewall Server Review" dialog indicates that the Firewall Server is "off," click the "Reboot YesWare Server" button to restart the BitStorm Server. All YesWare services will be down while the BitStorm Server reboots (about 5 minutes). After the BitStorm Server restarts, browse to the "Firewall Server Review" dialog and verify that the server is "on." If the Firewall Server does not restart, contact Elastic Networks Technical Assistance and Support (TAS).

Route Server

Clicking the Route Server operation link launches the "Route Server Review" dialog. The Route Server controls the internal processes for adding and removing routes from the YesWare route table.

Figure 8-5 shows the "Route Server Review" dialog.

Figure 8-5
Route Server Review dialog



Route Server problems

If the Route Server is having problems or is shut down, YesWare will not add or remove user routes from the system.

Restarting the Route Server

If the "Route Server Review" dialog indicates that the Route Server is "off," click the "Reboot YesWare Server" button to restart the BitStorm Server. All YesWare services will be down while the BitStorm Server reboots (about 5 minutes). After the BitStorm Server restarts, browse to the "Route Server Review" dialog and verify that the server is "on." If the Route Server does not restart, contact Elastic Networks Technical Assistance and Support (TAS).

Proxies

The **Proxies** function contains the operations to configure and start/stop the InterProxy routing application. The InterProxy application serves as the router for visitors connected to the VBN.

As noted in Chapter 1, visitors receiving InterProxy-based internetwork access complete the following process:

1 The visitor connects to the YesWare VBN through either an EtherLoop modem or Ethernet switch port, starts the visitor computer and attempts to browse the Internet.

2 The system displays an authentication page, and the visitor provides the required authentication information.

3 The EtherLoop or Ethernet system connects over an intermediate switch or hub to the BitStorm Server **ETH 1** interface.

4 At the BitStorm Server, the InterProxy function translates the non-local visitor IP address to appear local to the host network.

   Note: If the visitor computer is configured for Dynamic Host Configuration Protocol (DHCP), the InterProxy assigns it an address from its DHCP pool.

5 The InterProxy routes the VBN traffic from the **ETH 1** interface over to the **ETH 0** interface

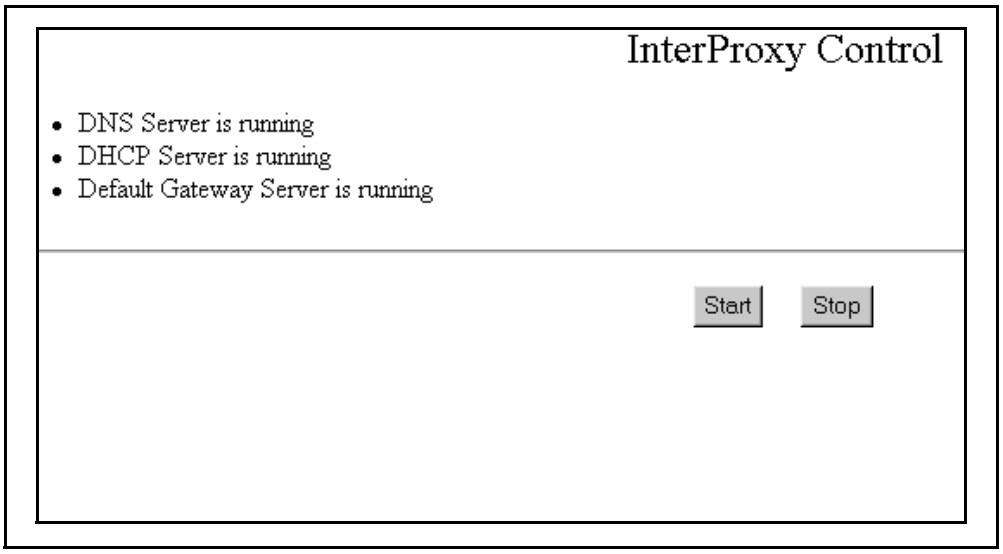
6 The **ETH 0** interface connects to the host LAN or LAN/WAN termination which is connected to a WAN such as the Internet or a corporate intranet.

The following sections describe the operations contained in the **Proxies** function.

InterProxy Start/Stop

Clicking the InterProxy Start/Stop operation link launches the "InterProxy Control" dialog. This dialog is used to start and stop InterProxy service, and displays the status (running/stopped) of YesWare's DNS, DHCP and Default Gateway servers. Figure 8-6 shows the "InterProxy Control" dialog.

Figure 8-6
InterProxy Control dialog



InterProxy Configure

Clicking the InterProxy Configure operation link launches the "InterProxy Configuration" dialog. InterProxy DHCP pool and other VBN settings are configured using the InterProxy Configure function in the **YesWare** *Servers and Proxies* module. Figure 8-1 shows the "InterProxy Configuration" dialog. Table 8-2 on page 8-12 describes the settings, field, and field-entry requirements for the "InterProxy Configuration" dialog.

Figure 8-7
InterProxy Configuration dialog

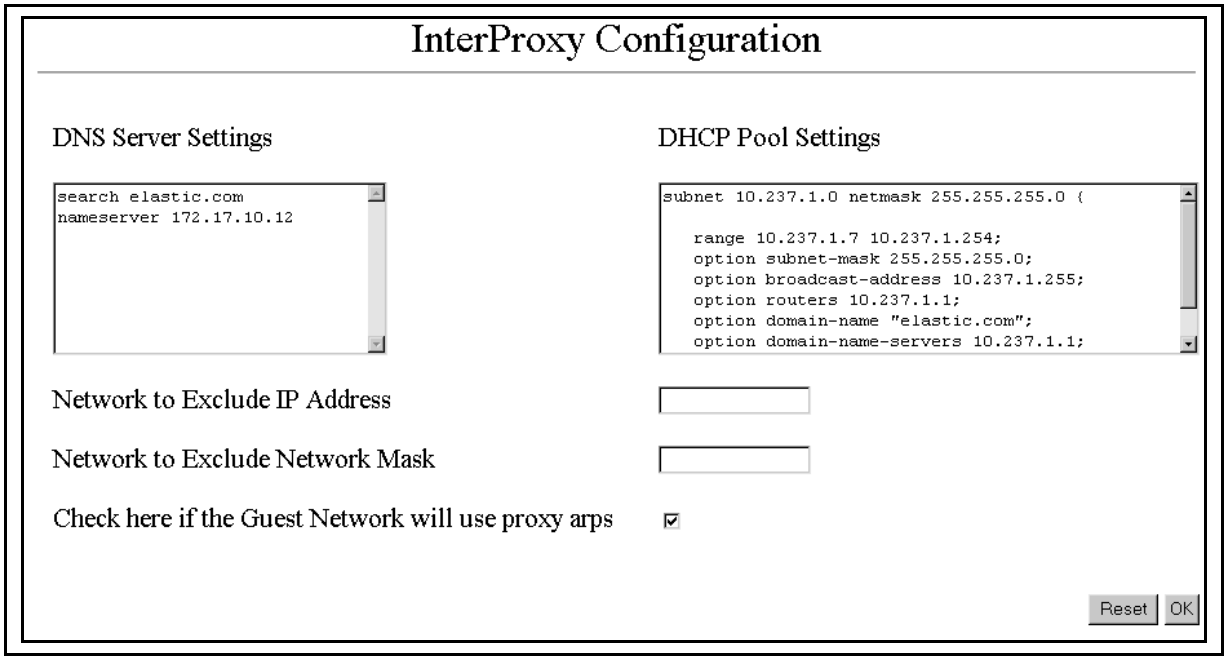


Table 8-2
InterProxy Configuration settings

InterProxy Setting	Field Description	Field Entry Requirements
DNS Server Settings	This field is used to display, modify, and add Domain Name System (DNS) nameservers used to resolve host name requests from the YesWare VBN. The LAN administrator must provide the the DNS server IP address used by hosts on the local network. ***Note:*** The "universal" DNS address is **199.191.128.104**.	View, edit or add DNS nameservers. This field is automatically filled with nameservers configured using the OSM **nameserver** command (see Chapter 3). In addition, YesWare automatically adds a DNS nameserver "search" entry for the local domain on which the BitStorm Server host resides.
DHCP Pool Settings	This field displays the DHCP (Dynamic Host Configuration Protocol) pool settings for the YesWare VBN.	The settings in this field are automatically filled with default settings based on the default **ETH 1** IP settings. These settings can be modified to meet local network specifications (see “Requirements for DHCP settings” on page 8-13).
Network to Exclude IP Address	This field is used to specify the IP address of an additional logical subnet on the **ETH 1** side of the BitStorm Server that is excluded from InterProxy service (this field is not related to the **Static IP Provisioning** function).	This field is optional. Enter the network address of the subnet to exclude from InterProxy service.
Network to Exclude Network Mask	This field is used to specify the Network Mask of an additional logical subnet on the **ETH 1** side of the BitStorm Server that is excluded from InterProxy service (this field is not related to the **Static IP Provisioning** function).	This field is optional. Enter the network mask of the subnet to exclude from InterProxy service.
Check here...proxy arps	Enabling this function prevents network conflicts caused by the InterProxy attempting to serve traffic meant for the local network router.	This field is enabled by default, and it is recommended the ’Proxy Arp’ is always enabled.

Requirements for DHCP settings

Any changes to DHCP settings in the "InterProxy Configuration" dialog must meet the following requirements:

- The DHCP address group must be on the same subnet as the BitStorm Server **ETH 1** IP address.
- The **ETH 1** IP address and the broadcast IP address cannot be within the DHCP address pool.
- The DHCP range cannot overlap any other hosts on the network, including VBN visitor static IP addresses.
- The IP address settings for "option routers" and "option domain-name-servers" must be identical to the BitStorm Server **ETH 1** IP address.

The default TCP/IP configuration for **ETH 1** is an IP address of 10.237.1.1 with a network mask of 255.255.255.0. Table 8-3 lists the default InterProxy DHCP settings and values.

Table 8-3
Default InterProxy DHCP setting values

Default DHCP Setting	Value
subnet	10.237.1.0
netmask	255.255.255.0
range	10.237.1.7 (DHCP Pool Start) 10.237.1.254 (DHCP Pool End)
option subnet-mask	255.255.255.0
option broadcast-address	10.237.1.255
option routers	10.237.1.1
option domain-name	"elastic.com"
option domain-name-servers	10.237.1.1

TFTP

The **TFTP** function contains the operations to start/stop and review the status of the YesWare trivial file transfer protocol (TFTP) server. This server is used to transfer firmware onto the BitStorm Server to upgrade Ethernet switches on the **ETH 1** side of the BitStorm Server.

> ***CAUTION - Potential network security breach***
> Except when actively transferring files, the TFTP server should be turned **off**. If the TFTP server is not turned off, the BitStorm Server is vulnerable to service or security disruptions caused by outside systems.

> ***Note:*** The **TFTP** function is used in conjunction with the **HTTP Proxy** function used to "reverse-proxy" into the BitStorm Server and perform a VBN switch upgrade. The **HTTP Proxy** functionality is not included in this release of YesWare, so the TFTP server should not be used at this time. The **HTTP Proxy** function will be released in the near future as an update to this release of YesWare.

Figure 8-8 shows the "TFTP Control" dialog used to start/stop the TFTP server. Figure 8-9 shows the "TFTP Status" dialog used to review the status of the TFTP server.

Figure 8-8
TFTP Control dialog

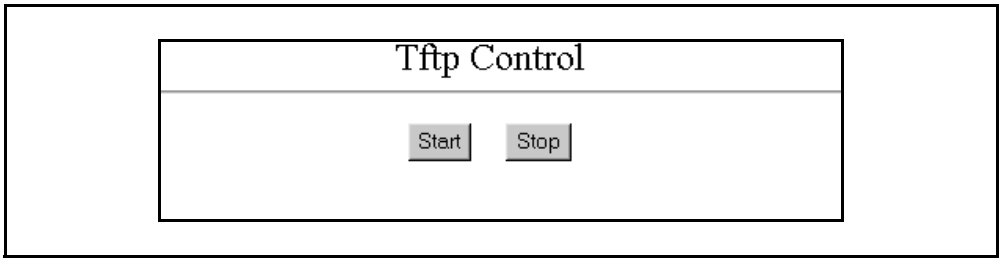
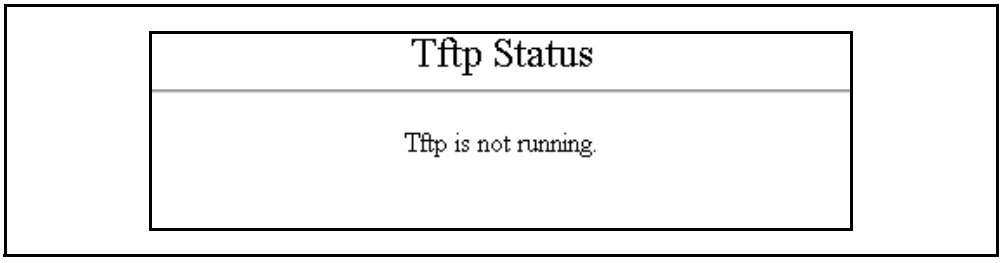


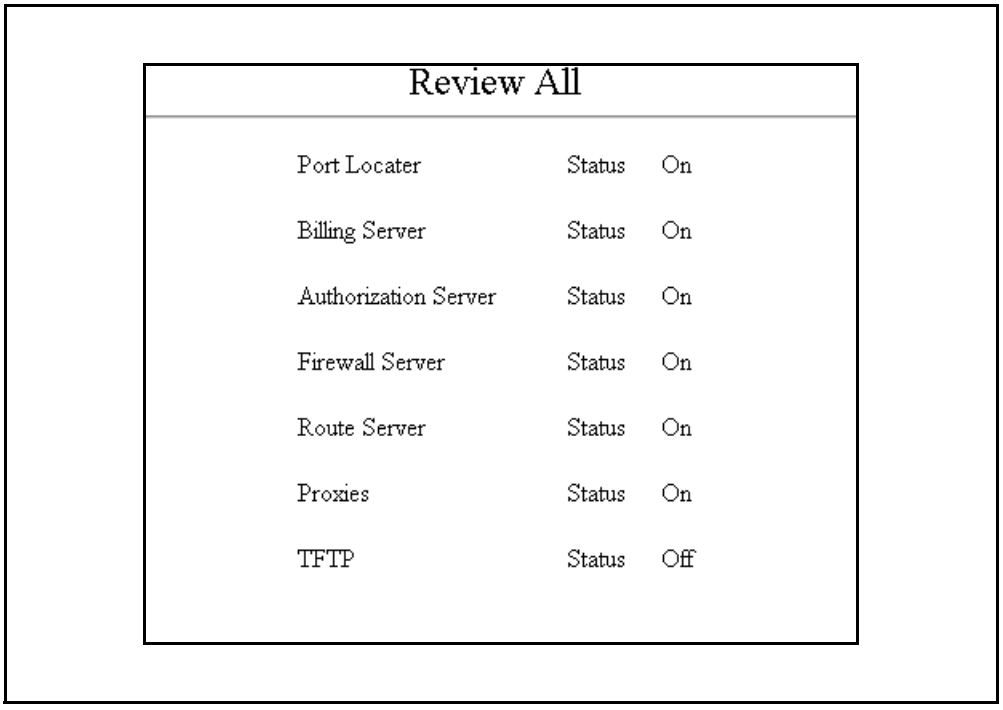
Figure 8-9
TFTP Status dialog



Review All

The **Review All** function contains the operation to review the status of all servers and proxies in the *Servers and Proxies* module. Figure 8-10 shows the "Review All" dialog.

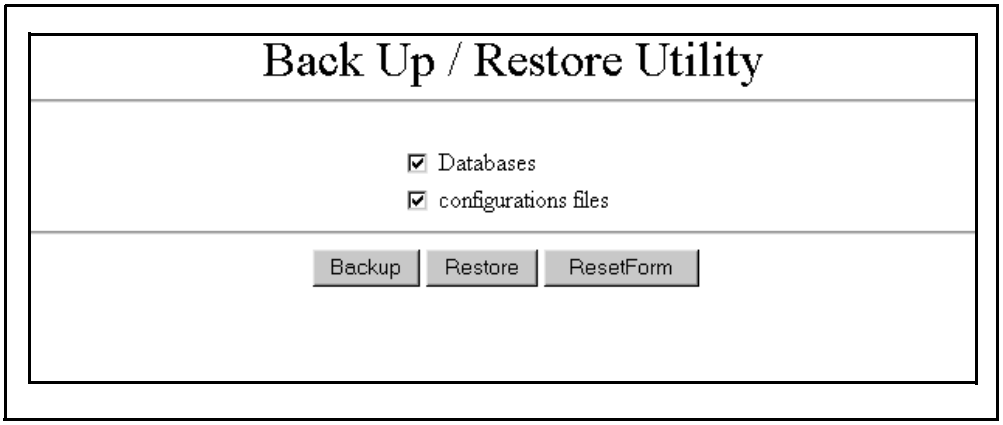
Figure 8-10
Review All dialog



Database

The **Database** function contains the operation to back-up and restore all the YesWare provisioning data and configuration settings. Figure 8-11 shows the "Back Up/Restore Utility" dialog used to perform database and configuration backups.

Figure 8-11
Backup/Restore Utility dialog



Databases backup option

Selecting the "Databases" option backs up or restores the provisioning information such as port location assignments, service billing rates and port Use Contexts.

Configuration files backup option

Selecting the "Configuration Files" option backs up or restores the ssytem and network configuration settings such as InterProxy DHCP and DNS settings and PMS interface configuration files.

YesWare backup file location

When a backup operation is launched, YesWare creates a copy of its database and configuration files on the following directory:

[BitStorm Server ETH 0 IP address]/home/ftp/pub/

Procedure 8-1 on page 8-17 describes the recommended procedure for using the Back Up/Restore Utility and ***ftp*** to protect YesWare configuration and database provisioning information.

Procedure 8-1
Backing up and restoring the YesWare databases and configuration files

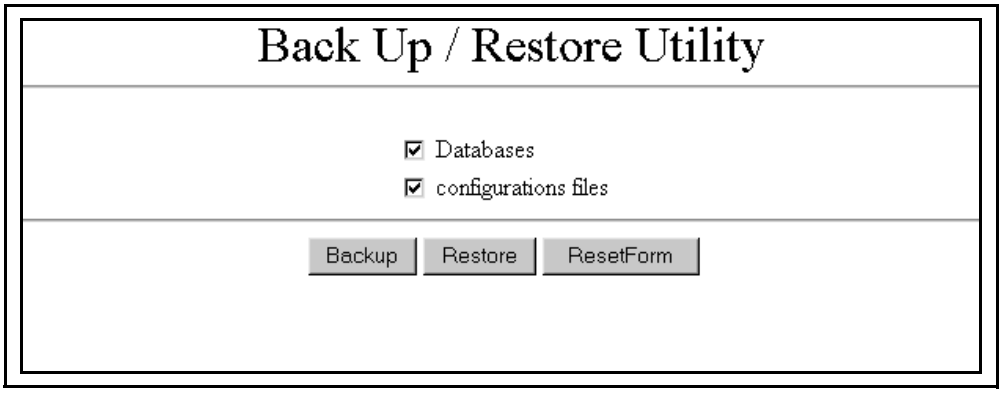
This procedure contains the steps to backup and restore the YesWare databases and configuration files using the **Database /** Backup operation in the YesWare *Servers and Proxies* module.

This procedure requires a basic knowledge of the file transfer protocol (***ftp***) method of retrieving and sending files, and a computer with an ***ftp*** client application.

Action

Step	Action
	Backup operation
1	Browse to the *Servers and Proxies* module in the YesWare software group.
2	Click the Backup operation link under the **Database** function to launch the "Back Up / Restore Utility" dialog as shown in Figure 8-12.

Figure 8-12
Back Up / Restore Utility dialog



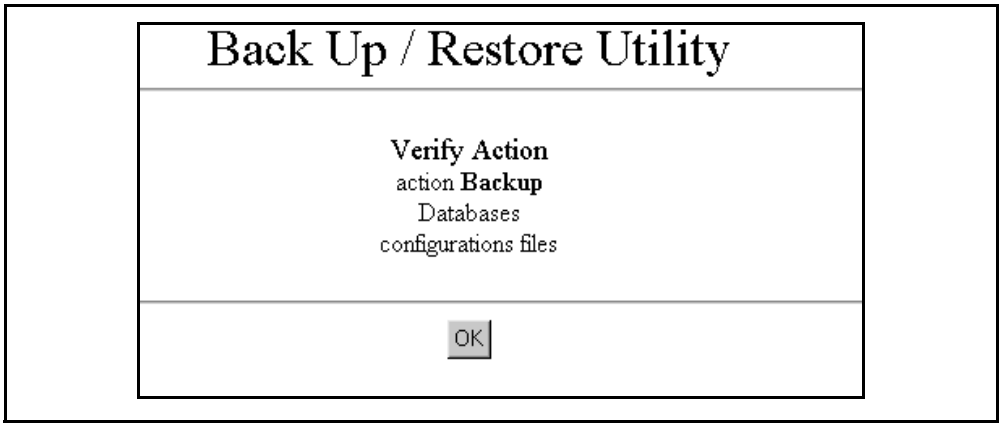
—continued—

Procedure 8-1 (continued)
Backing up and restoring the YesWare databases and configuration files

Step	Action

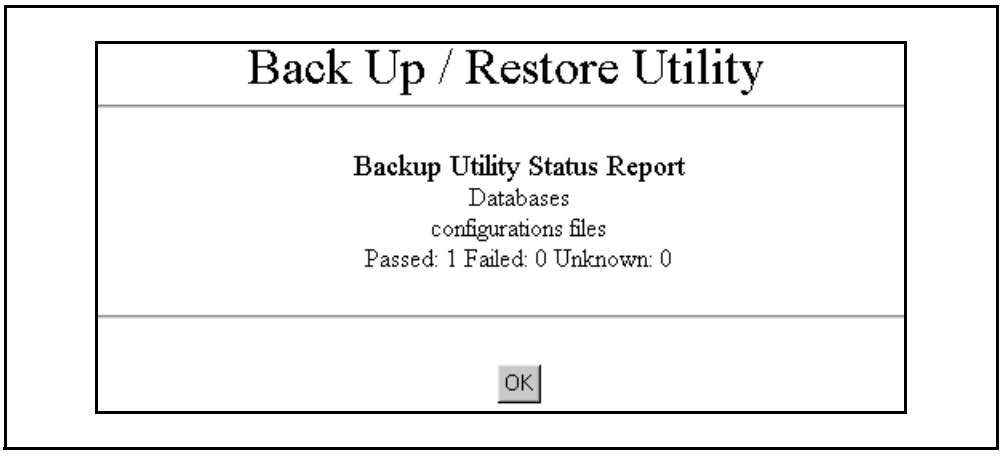
3 Select the desired backup option(s) ("Databases" or "configuration files") and click the Backup button. The system displays a "Verify Action" dialog that confirms the selected backup operation (see Figure 8-13).

Figure 8-13
Backup / Restore "Verify Action" dialog



4 Click OK to begin the backup operation. When finished, the system displays a status report as shown in Figure 8-14.

Figure 8-14
Backup Utility Status Report dialog



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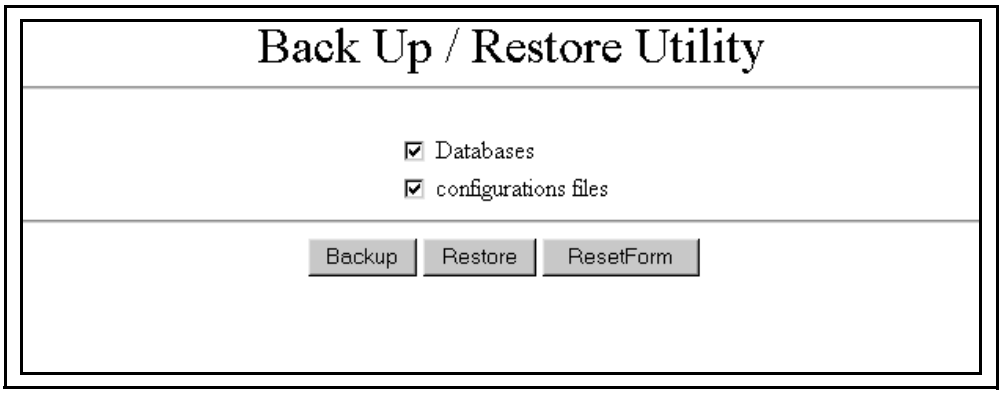
Procedure 8-1 (continued)
Backing up and restoring the YesWare databases and configuration files

Step	Action
	Retrieving backup files with *ftp*
5	Open an ***ftp*** connection to the BitStorm Server using port 2221.
6	Login to the as follows: **User: ftp-user** **Password: [password of admin user, see *Note*]** ***Note:*** The admin user mentioned here is the StormTracker Configuration Manager admin user (see Chapter 3), and not an "Admin" user created using the YesWare web interface. The default password for both the admin and ftp-user users is **etherloop**. This password can be changed using the **password** command in the StormTracker Configuration Manager. When the admin password is changed, use the same new password for the ftp-user login.
7	Change to the **/home/ftp/pub** directory as follows: **cd /home/ftp/pub**
8	Retrieve the backup file(s) to a safe location on a local system or network archive using the ***ftp*** get command.
	Restoring the YesWare backup files onto the BitStorm Server
9	Connect to the BitStorm Server using ***ftp*** and change to the **/home/ftp/pub** directory as described in steps 5 through 7.
10	Place the backup file(s) in the **/home/ftp/pub** directory using the ***ftp*** put command.
1	Browse to the *Servers and Proxies* module in the YesWare software group.
2	Click the Backup operation link under the **Database** function to launch the "Back Up / Restore Utility" dialog as shown in Figure 8-15.

Figure 8-15
Back Up / Restore Utility dialog



—continued—

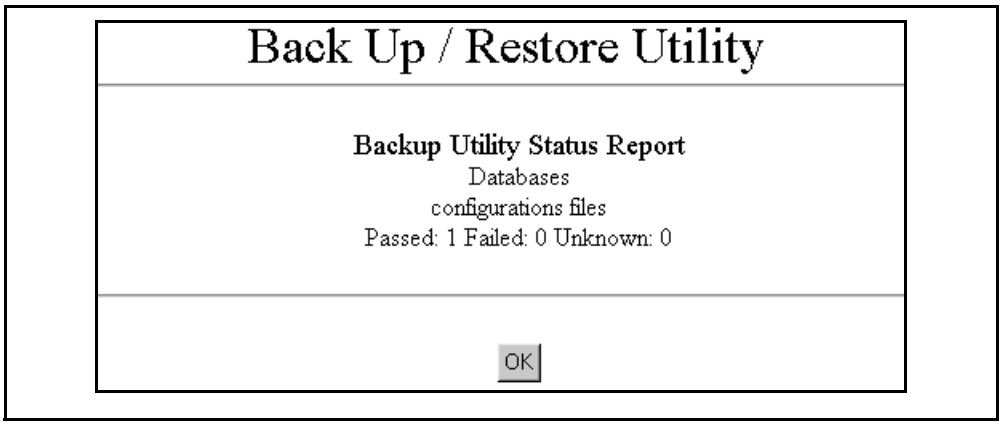
Procedure 8-1 (continued)
Backing up and restoring the YesWare databases and configuration files

Step	Action
3	Select the desired restore option(s) ("Databases" or "configuration files") and click the Restore button. The system displays a "Verify Action" dialog that confirms the selected restore operation (see Figure 8-16).

Figure 8-16
Backup / Restore "Verify Action" dialog

Step	Action
4	Click OK to begin the restore operation. When finished, the system displays a status report as shown in Figure 8-17. Click OK to exit out of the status report dialog.

Figure 8-17
Backup Utility Status Report dialog



STOP

You have completed this task.

Using the *Diagnostics* module

This chapter describes the *Diagnostics* module, including the module functions, operations, dialogs, and field entry requirements.

Chapter Topic

This chapter includes the following topic.

Topic	See
Diagnostics module function and operations	page 9-2

Diagnostics module function and operations

The *Diagnostics* module contains the **Verify Network Architecture** function. This function contains several operations used to test system provisioning and functioning using a variety of YesWare system characteristics. Table 9-1 summarizes the purpose of each of the operations in the **Verify Network Architecture** function. The following sections describe each operation in more detail.

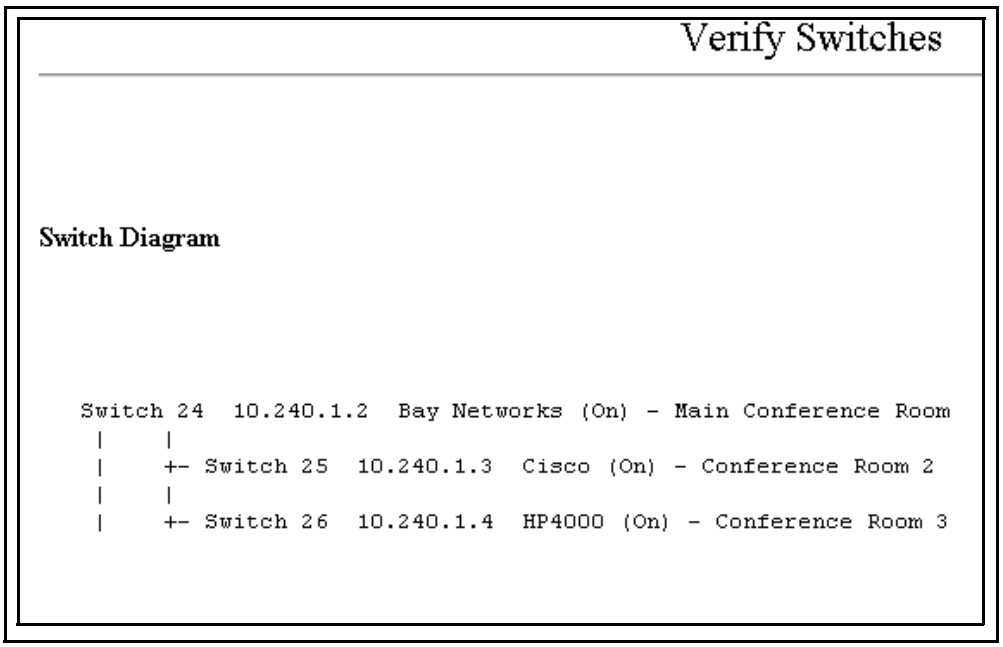
Table 9-1
Verify Network Architecture operations

Operation name	Function purpose
Verify Switches	This operation verifies the validity of the provisioning information for all switches in the database and displays a simple line diagram indicating the switch architecture.
Ping Switches	This operation sends a "ping" signal to verify the physical connection of switches provisioned in the system.
Verify Ports	This operation verifies the configuration of all ports in the database.
Trace User	This operation is used to trace the switch and port path used by VBN users to reach the BitStorm Server.
Show Active Users	This operation displays all user IP addresses active on the VBN and the total number of active users.
Debug Port	This operation displays the port and switch connection information for the VBN user port.

Verify Switches

Clicking the Verify Switches operation link initiates a test that verifies the switch provisioning architecture for all switches in the system. Figure 9-1 shows an example of the "Verify Switches" report dialog.

Figure 9-1
Verify Switches report dialog


Verify Switches
Switch Diagram
Switch 24 10.240.1.2 Bay Networks (On) - Main Conference Room
| |
| +- Switch 25 10.240.1.3 Cisco (On) - Conference Room 2
| |
| +- Switch 26 10.240.1.4 HP4000 (On) - Conference Room 3

Verify Switches test metrics and results

The Verify Switches operation tests if each switch and port provisioned in the system has a valid configurations for parent switch, downlink IP address, and port Use Context. As shown in Figure 9-1, the Verify Switches / Switch Diagram displays the following information for all switches provisioned in the system:

- switch name
- switch IP or MAC address
- switch brand
- switch location
- simple line diagram indicating the parent and downlink relationships of the switches in the system architecture.

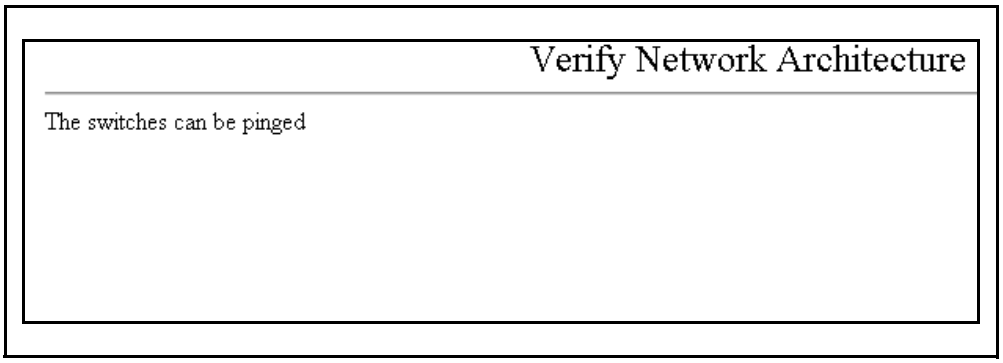
Resolving switch network architecture problems

The Verify Switches operation will indicate the nature of any network architecture problems it encounters. Typical problems include no downlink IP address provisioned for the downlink ports, or a port Use Context of **Public, Guest,** or **Credit** provisioned for a downlink port. Downlink ports must be provisioned with a **Network** port Use Context.

Ping Switches

Clicking the Ping Switches operation sends a "ping" signal to verify the physical connection of switches provisioned in the system. The results of the ping test are displayed in the "Verify Network Architecture" dialog. Figure 9-2 shows an example of the "Verify Network Architecture" dialog.

Figure 9-2
Verify Network Architecture dialog



Ping Switches test metrics and results

The Ping Switches operation tests the physical connection of each switch in the YesWare VBN system (that is, on the **ETH 1** side of the BitStorm Server). If all switches in the VBN system respond to the ping test, the Ping Switches test displays a simple "can be pinged" result. If a switch does not respond, the Ping Switches test displays an "[IP address] cannot be pinged" result for the first switch (and only the first switch) in the architecture that fails to respond.

> ***Note:*** The StormTracker Configuration Manager also contains a **ping** command that can be used to test connections on both the **ETH 1** and the **ETH 0** sides of the BitStorm Server. See Chapter 3 for more information.

Resolving switch connection problems

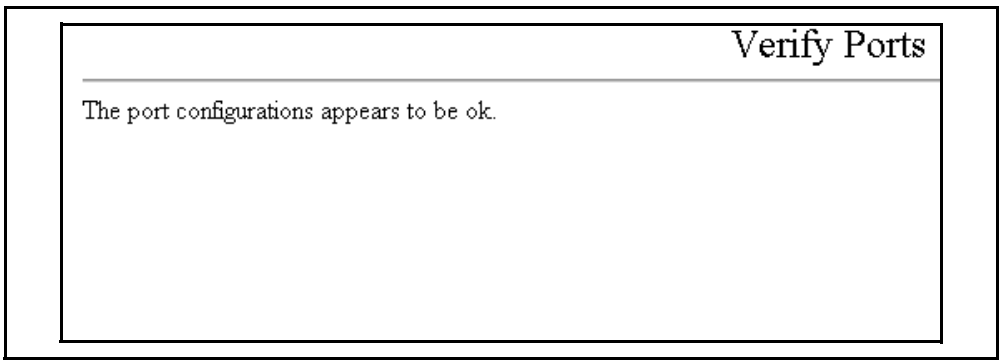
Ping Switches test failures can indicate one or more of the following problems:

- switch is not physically connected to the system
- switch has been assigned an incorrect IP address
- switch has been otherwise incorrectly configured on the network

Verify Ports

Clicking the Verify Ports operation initiates a test that verifies the port configurations for all ports in the system. Figure 9-3 shows an example of the "Verify Ports" report dialog.

Figure 9-3
Verify Ports report dialog



Verify Ports test metrics and results

The Verify Ports operation tests the port configurations for all ports in the YesWare VBN system. When all ports in the VBN system have valid port configurations, the Verify Ports test displays a simple "ok" result as shown in Figure 9-3.

Resolving port configuration problems

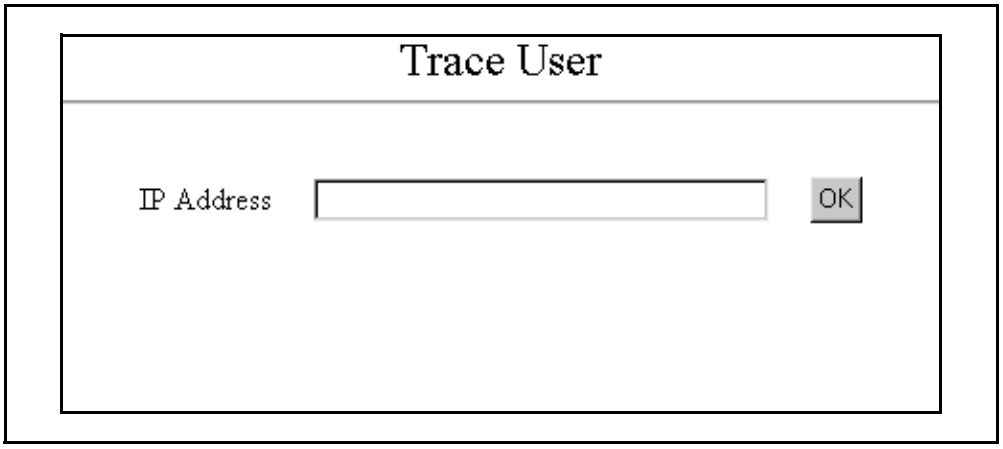
Verify Ports test failures can indicate one or more of the following problems:

- non-existent ports are provisioned in the system
- non-billable "network" ports are provisioned to bill users

Trace User

Clicking the Trace User operation launches the "Trace User" dialog. The Trace User operation is used to identify the switch path followed by a particular VBN user. Figure 9-3 shows an example of the "Trace User" dialog.

Figure 9-4
Trace User dialog



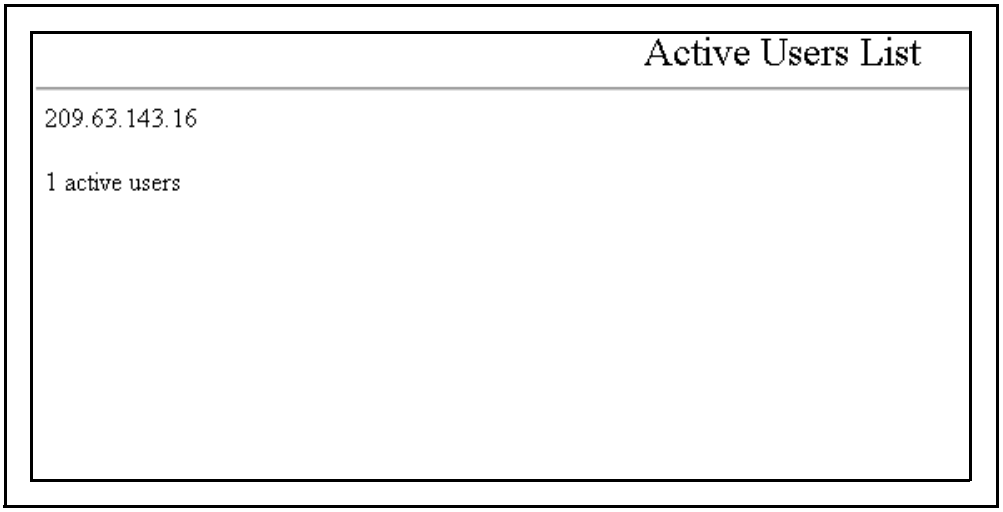
Trace User operation

To use the Trace User operation, enter the IP address of an active VBN user in the IP Address field of the "Trace User" dialog, and click the OK button. The system will display the path of switches the followed by the VBN user data traffic from the VBN port to the BitStorm Server.

Show Active Users

Clicking the Show Active Users operation launches the "Active Users List" report dialog. Figure 9-3 shows an example of the "Active Users List" dialog.

Figure 9-5
Active Users List report dialog



Active Users List report results

The "Active Users List" report dialog displays a list of all user IP addresses active on the VBN, and the total number of active users.

Debug Port

Clicking the Debug Port operation operation link initiates a test that identifies the port on the CO modem or Ethernet switch to which the visitor computer is sending traffic. The Debug Port operation is useful to immediately verify port function and identify the port on the CO modem or switch, without having to physically trace the wiring connection.

Using the Debug Port operation

Using the Debug Port operation requires the following steps:

- Install an EtherLoop CPE modem or Ethernet CAT 5 connection in a visitor room on the **ETH 1** side of the BitStorm Server.
- Connect to the port in the visitor room.
- Browse to the **ETH 0** IP address of the BitStorm Server and login to the **YesWare-VBN** software group.
- Select the *Diagnostics* module and click on the Debug Port operation. The Debug Port operation executes a test that verifies the CPE modem or Ethernet CAT 5 port is connected and communicating to a port on a corresponding EtherLoop CO modem or Ethernet switch. YesWare then displays the port information for the corresponding CO modem or Ethernet switch.

This test must be conducted from the **ETH 1** side of the BitStorm Server. This means the test can only be performed through an EtherLoop CPE modem such as the **StormPort** or **Elite,** or through an Ethernet switch port that shares the **ETH 1** subnet.

Using the *Logs* module

This chapter describes capablilities of the YesWare *Logs* module.

Chapter topic list

This chapter includes the following topics.

Topic	See
YesWare record management capabilities	page 10-2
Logs module operations	page 10-3

YesWare record management capabilities

This section describes YesWare's capabilities to view and manage billing and system records generated by Guest Room Billing, Credit Card Billing, and Authorization Code Billing. Conference Room Billing records are manually managed as described in Chapter 12.

Guest Room Billing record management

YesWare keeps Service Detail Record (SDR) logs for all ports provisioned to use Guest Room Billing. SDR log details include the date/time the SDR log was created, PMS configuration data (see Chapter 11), and the fee charged for the service. The *Billing* module contains functions to view and audit SDR logs.

In addition to the Billing module **SDRs** function, YesWare supports file transfer protocol (***ftp***) access to retrieve and delete SDR logs from the BitStorm Server. Procedure 6-4 on page 6-37 describes the procedure for using ***ftp*** to retrieve and delete SDR logs.

Credit Card Billing record management

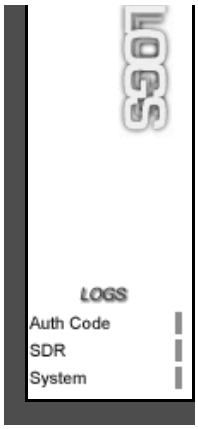
YesWare keeps credit transaction reports for all ports provisioned to use **Credit Card Billing**. This function can also be used to download and save the Credit Card Billing transaction logs in comma-delimited or tab-delimited formats. See "Generate Billing Reports" on page 6-22 for more information.

Authorization Code Billing record management

YesWare keeps Auth Code logs for all the ports provisioned to use Authorization Code Billing. Auth Code log details include the date/time the Auth Code was created, fee charged for the Auth Code, and date/time the Auth Code was used (activated).

The Billing module and the *Logs* module both contain log operations that track the status of all Auth Codes in the system (pending, activated, or expired).

Logs module operations



The *Logs* module contains the operations used to view Auth Code, SDR, and System logs. Table 10-1 summarizes the purpose of each of these operations in the *Logs* module. The following sections describe each operation in more detail.

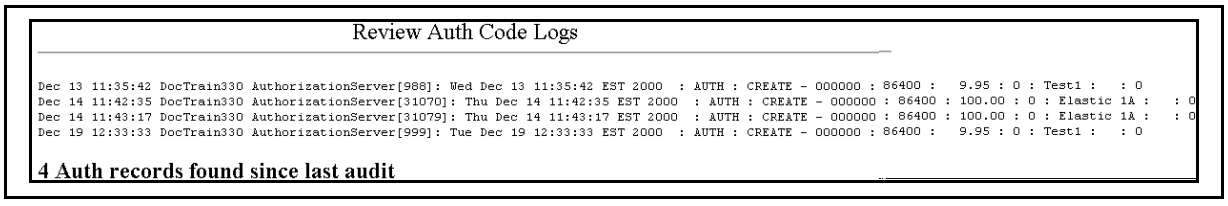
Table 10-1
Verify Network Architecture operations

Operation name	Function purpose
Auth Code	This operation displays the logs that track the status of all Auth Codes in the system (pending, activated, or expired), and the fee charged for the service.
SDR	This operation displays the logs that track the status of all ports provisioned to use Guest Room Billing. SDR log details include the date/time the SDR log was created, PMS configuration data, and the fee charged for the service.
System	This operation displays the logs that track all system "events" such as re-starts, user logins, etc.

Auth Code

Clicking the Auth Code operation link retrieves the Auth Code logs. Figure 10-1 shows an example of an Auth Code log.

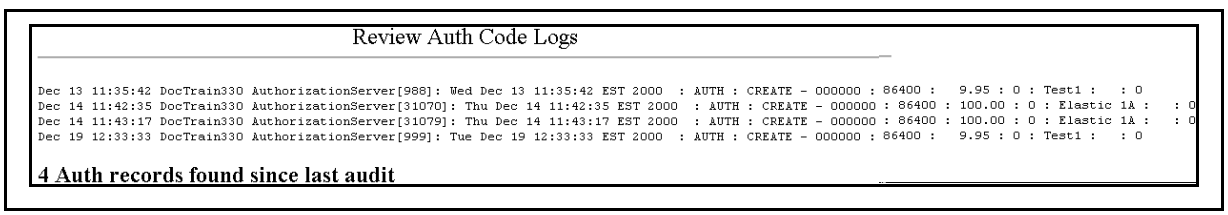
Figure 10-1
Auth Code log example


Review Auth Code Logs
Dec 13 11:35:42 DocTrain330 AuthorizationServer[988]: Wed Dec 13 11:35:42 EST 2000 : AUTH : CREATE - 000000 : 86400 : 9.95 : 0 : Test1 : : 0
Dec 14 11:42:35 DocTrain330 AuthorizationServer[31070]: Thu Dec 14 11:42:35 EST 2000 : AUTH : CREATE - 000000 : 86400 : 100.00 : 0 : Elastic 1A : : 0
Dec 14 11:43:17 DocTrain330 AuthorizationServer[31079]: Thu Dec 14 11:43:17 EST 2000 : AUTH : CREATE - 000000 : 86400 : 100.00 : 0 : Elastic 1A : : 0
Dec 19 12:33:33 DocTrain330 AuthorizationServer[999]: Tue Dec 19 12:33:33 EST 2000 : AUTH : CREATE - 000000 : 86400 : 9.95 : 0 : Test1 : : 0
4 Auth records found since last audit

SDR

Clicking the SDR operation link retrieves the SDR logs. Figure 10-2 shows an example of an SDR log.

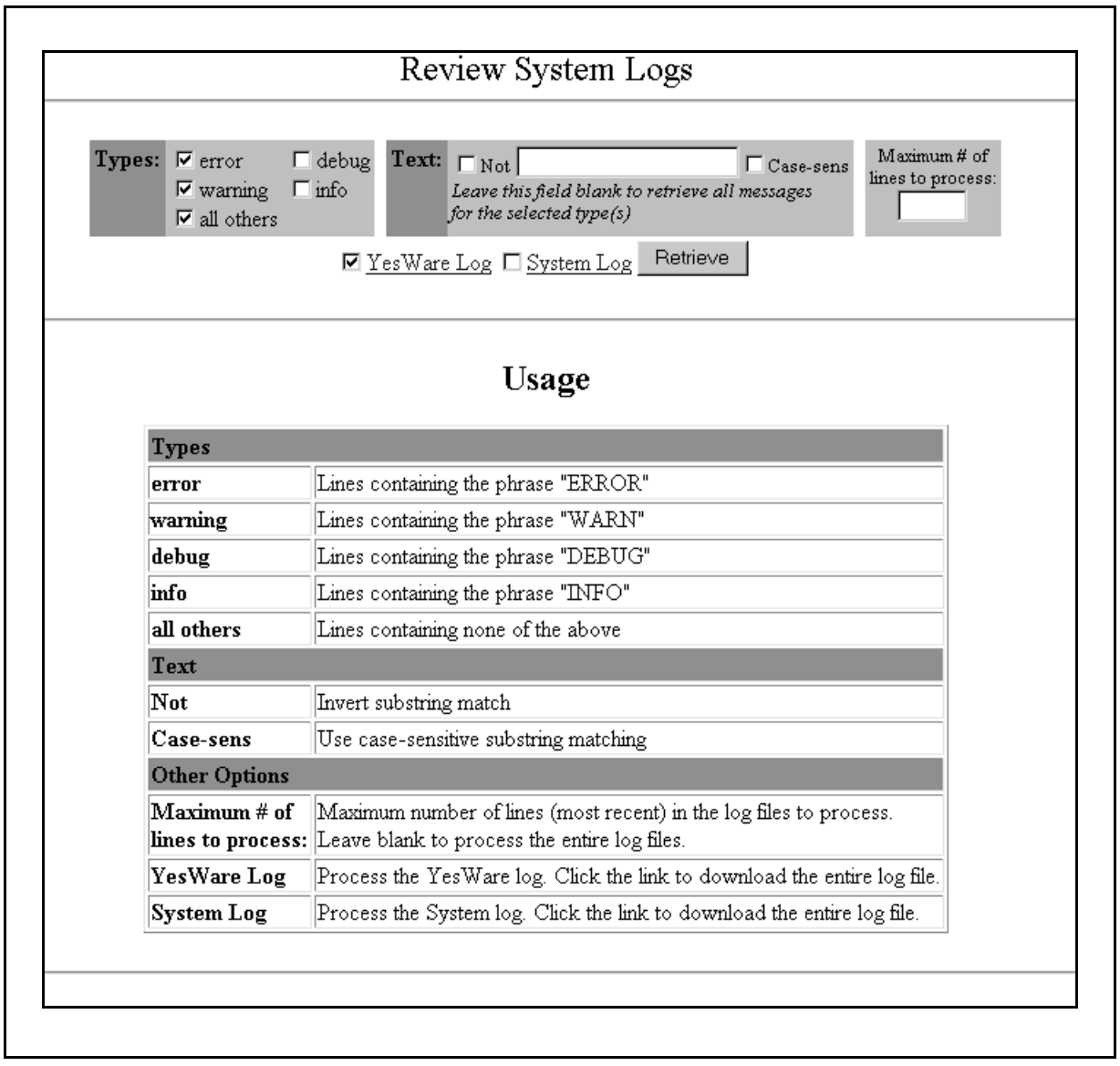
Figure 10-2
SDR log example


Review Auth Code Logs
Dec 13 11:35:42 DocTrain330 AuthorizationServer[988]: Wed Dec 13 11:35:42 EST 2000 : AUTH : CREATE - 000000 : 86400 : 9.95 : 0 : Test1 : : 0
Dec 14 11:42:35 DocTrain330 AuthorizationServer[31070]: Thu Dec 14 11:42:35 EST 2000 : AUTH : CREATE - 000000 : 86400 : 100.00 : 0 : Elastic 1A : : 0
Dec 14 11:43:17 DocTrain330 AuthorizationServer[31079]: Thu Dec 14 11:43:17 EST 2000 : AUTH : CREATE - 000000 : 86400 : 100.00 : 0 : Elastic 1A : : 0
Dec 19 12:33:33 DocTrain330 AuthorizationServer[999]: Tue Dec 19 12:33:33 EST 2000 : AUTH : CREATE - 000000 : 86400 : 9.95 : 0 : Test1 : : 0
4 Auth records found since last audit

System

Clicking the System operation link launches the "Review System Logs" utility dialog. This utility dialog is used to filter system logs ba a wide variety of characteristics. Figure 10-2 shows the "Review System Logs" utility dialog.

Figure 10-3
Review System Logs utility dialog.



YesWare PMS integration

This chapter describes how to integrate the BitStorm Server into a Property Management System (PMS) for facilities using Guest Room Billing.

Chapter topic list

This chapter includes the following topics.

Topic	See
YesWare PMS integration process	page 11-2
BitStorm Server direct connection to PMS	page 11-3
BitStorm Server isolated connection to PMS	page 11-4

Chapter task list

This chapter includes the following tasks.

Procedure	Task	See
11-1	Connecting the BitStorm Server to the PMS	page 11-5

YesWare PMS integration process

Integrating the BitStorm Server into a facility PMS consists of the following major steps:

- configure the EtherLoop or Ethernet transport system ports to support Room Billing as described earlier in this document
- configure the PMS protocol and time settings using the Configure Billing Manager function, and billing rates
- connect the BitStorm Server to the PMS interface
- configure the PMS interface using the Configure PMS interface function

This chapter describes the requirements to connect the BitStorm Server to the facility PMS and to configure the PMS interface.

BitStorm Server connection to the PMS

The BitStorm Server can connect to the PMS through either a direct RS232 serial connection from BitStorm Server **COM 1**, or using short-haul modem pairs (also called line drivers). The short-haul modem pairs are used to overcome RS232 distance limitations and isolate the BitStorm Server connection.

“BitStorm Server direct connection to PMS” on page 11-3 describes the requirements for using the direct PMS connection method. “BitStorm Server isolated connection to PMS” on page 11-4 describes the requirements for using short-haul modems or line-drivers in the isolated PMS connection method.

Procedure 11-1 on page 11-5 contains the step-by-step procedure to connect the BitStorm Server to the facility PMS using either connection method.

YesWare PMS interface configuration

The *Billing* module Configure PMS interface operation is used to modify the PMS interface configurations. Each of these configurations are stored on the BitStorm Server as a "configuration file." These configuration files are used by the BitStorm Server to implement the specific posting protocols and record format required for posting to the PMS.

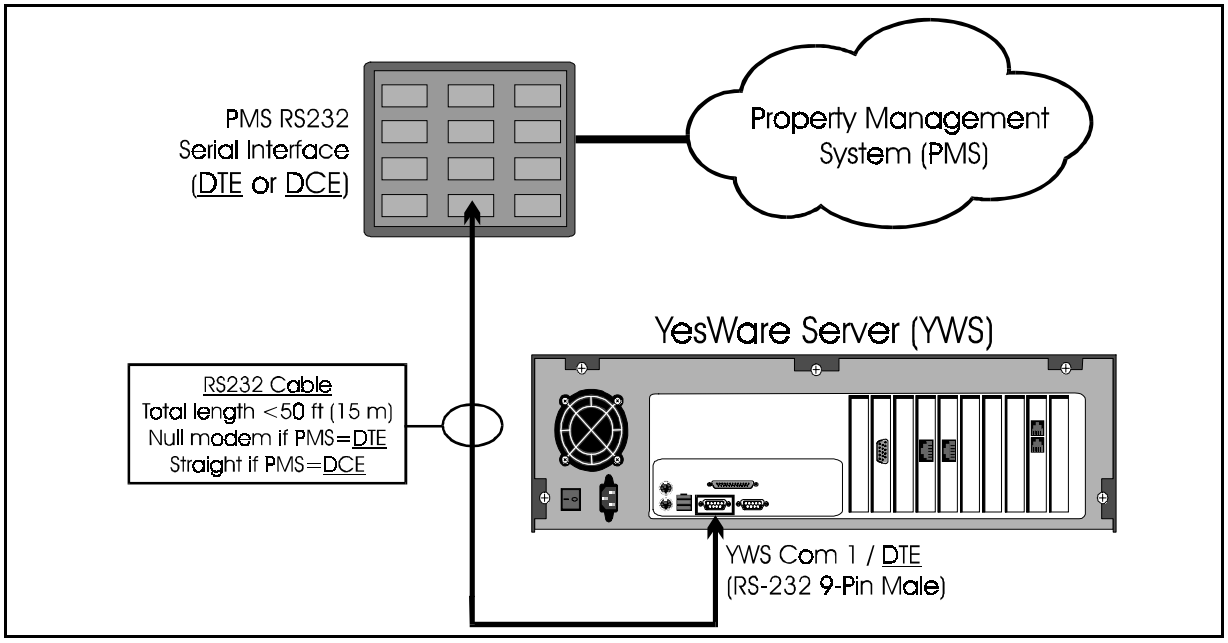
BitStorm Server direct connection to PMS

Figure 11-1 shows the BitStorm Server direct connection to the PMS. Note the following requirements about this type of connection:

- The direct connection method can be used only when the BitStorm Server is less than 50 ft (15 m) from the PMS interface.
- The BitStorm Server is a PC, which in the RS232 connection standard is a Data Terminal Equipment (DTE) device. If the PMS interface connection is also a DTE device, a "null-modem" RS232 cable must be used for any direct DTE-DTE connection.
- If the PMS interface is Data Circuit-terminating Equipment (DCE) device, a straight RS232 cable must be used.

Procedure 11-1 on page 11-5 describes how to determine if the PMS is a DCE or DTE device.

Figure 11-1
BitStorm Server direct connection to PMS



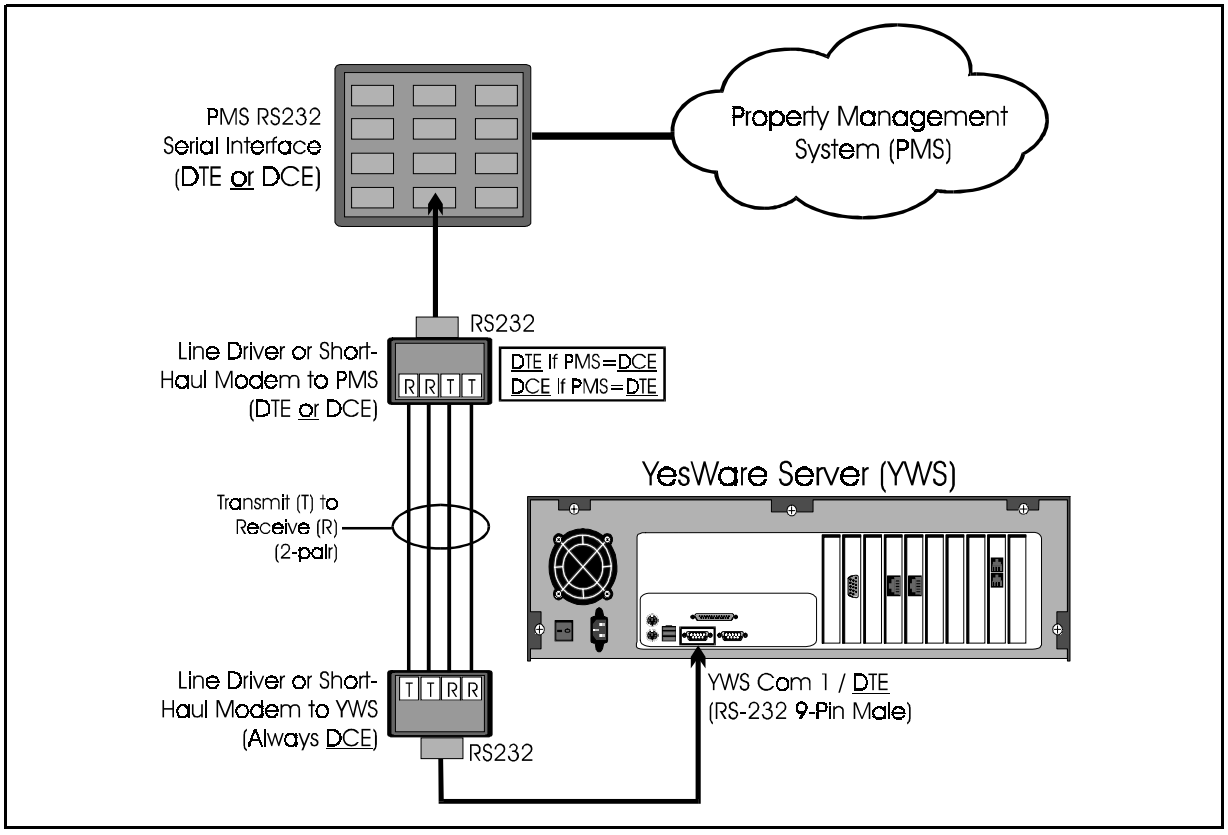
BitStorm Server isolated connection to PMS

Figure 11-2 shows the BitStorm Server isolated connection to the PMS. The isolated connection method consists of connecting a pair of short-haul modems or line drivers between the BitStorm Server and the PMS. The modem pair serves to boost the signal from the BitStorm Server to the PMS to ensure the integrity of the signal, and also isolate the BitStorm Server from damage caused by transient voltages. Note the following requirements about this type of connection:

- Use this method when the BitStorm Server is more than 50 ft (15 m) from the PMS interface, or if isolating and protecting the connection is a priority.
- The line driver or short-haul modem on the BitStorm Server end must be set to DCE.
- The two transmit wires on one modem/line driver must connect to the two receive wires on the other.
- The DTE/DCE setting of the modem/line driver on the PMS end is dependent on whether the PMS interface is DTE or DCE.

Procedure 11-1 on page 11-5 describes how to determine if the PMS is a DCE or DTE device.

Figure 11-2
BitStorm Server isolated connection to PMS



Procedure 11-1
Connecting the BitStorm Server to the PMS

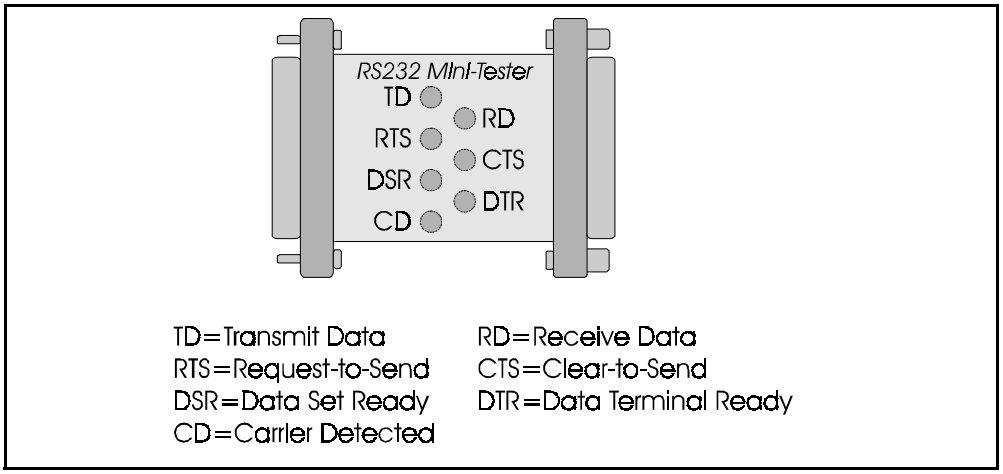
Use this procedure to select and connect the BitStorm Server to the PMS as described in “YesWare PMS integration process” on page 11-2.

Requirements

This procedure requires the following:

- two RS232 straight cables
- RS232 mini-tester similar to the one shown in Figure 11-3
- available RS232 connection on the PMS interface
- known RS232 DTE device connection such as a PC serial COM port or the BitStorm Server COM 1 port

Figure 11-3
RS232 Mini-tester



—continued—

Procedure 11-1 (continued)
Connecting the BitStorm Server to the PMS

Action

Step	Action
1	Connect an RS232 cable from the PMS RS232 serial interface to one end of a mini-tester similar to the one shown in Figure 11-3 on page 11-5.
2	With the device powered off, connect the known DTE device using the second RS232 straight cable to the other end of the RS232 mini-tester. If connecting to the BitStorm Server COM 1 port, the cable connector must be a 9-pin female.
3	Start the known DTE device. If the PMS device interface is DCE, **all** LEDs on the mini-tester should illuminate. If the PMS interface is a DTE device, one or more of the LEDs will not illuminate.
4	Select an RS232 cable to make the PMS connection based on the results of step 3.
5	Install the connection from the BitStorm Server to the PMS based on the facility requirements. See “YesWare PMS integration process” on page 11-2 for a description of these requirements and Figure 11-1 on page 11-3, “BitStorm Server direct connection to PMS,” or Figure 11-2 on page 11-4, “BitStorm Server isolated connection to PMS” for illustrations of the BitStorm Server-to-PMS connections.

You have completed this task.

YesWare Static IP configuration and port scheduling

This chapter describes the provisioning requirements and procedures to genrate static IP addresses and schedule and bill YesWare services in conference rooms using Conference Room Billing.

Chapter topic list

This chapter includes the following topics.

Topic	See
Conference Room Billing	page 12-2

Chapter task list

This chapter includes the following tasks:

Procedure	Task	See
12-1	Configuring Conference Room Billing	page 12-4
12-2	Scheduling conference room IP addresses	page 12-6
12-3	Configuring visitor computers for Conference Room Billing	page 12-11

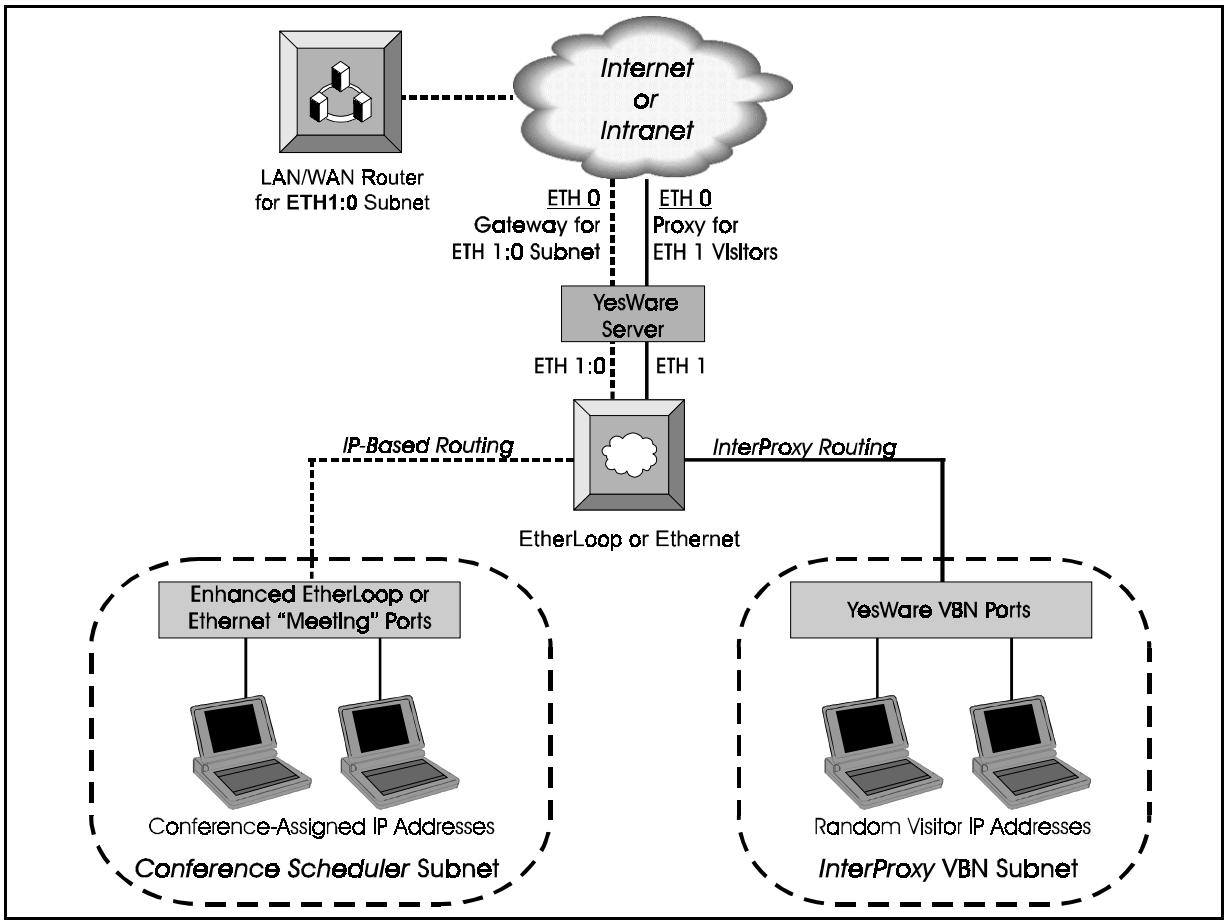
Conference Room Billing

Conference Room Billing is IP-based conference room service for customers who do not want/need YesWare's network address translation (NAT) capability. Conference Room Billing is set up using **Static IP Provisioning** function in the *Provisioning Wizard* module and the **Port Schedules** function in the *Switches and Ports* module. The static IP configuration of YesWare allows visitors with static, routable IP addresses on the **ETH 1** side of the BitStorm Server to access the Internet without undergoing NAT.

YesWare Static IP network architecture

Figure 12-1 shows the architecture of the YesWare static IP network. The YesWare static IP configuration allows visitors from the VBN (**ETH 1)** side of the BitStorm Server to pass through the host network (**ETH 0)** side**,** and on to a LAN/WAN without receiving InterProxy services. YesWare does this by creating a separate logical, routable network subnet using logical port **ETH 1:0**. The **ETH 0** interface serves as the subnet gateway and transmits conference attendee traffic to and from this subnet.

Figure 12-1
Static IP Configuration Network Architecture



YesWare Conference Room Billing configuration

The Conference Room Billing method uses Internet-routable IP addresses generated from an address pool using the **Static IP Provisioning** function. These IP addresses must be purchased from the Internet service-provider (ISP) and re-sold for a flat fee by the YesWare service-provider. The **Port Schedules** function generates a printable receipt to give to the customer and keep for provider records. The purchase price can be tracked using the receipts generated by the **Static IP Provisioning** function and through SDR billing logs.

> ***CAUTION - Conference Room Billing gives YesWare visitors unlimited system access***
>
> YesWare static IP configuration visitors are not required to authenticate to receive YesWare services. Because YesWare Static IP visitors are essentially on a separate logical network with Internet-routable IP addresses, visitors with a generated IP address will have unlimited access to any YesWare-VBN system port for the scheduled conference period.
>
> Also, visitor computers receive no protection from the BitStorm Server firewall, so firewall protection must be implemented using other means.

YesWare static IP configuration administrator requirements

The YesWare administrator must configure the conference room network using the **Static IP Provisioning** function. The YesWare administrator configuring the conference network must be familiar with LAN and WAN administration, particularly with setting up network subnets and working with routers.

- Procedure 12-1 on page 12-4 presents the steps to configure the IP-based conference network.

YesWare static IP configuration operator requirements

After the network is configured, a non-technical user (such as a front-desk clerk) can use the **Port Schedules** function in the *Switches and Ports* module to schedule conferences.

- Procedure 12-2 on page 12-6 presents the steps to book a conference room using **Port Schedules** function in the *Switches and Ports* module.

YesWare static IP configuration visitor requirements

Visitors using the conference rooms set up in YesWare static IP configuration must configure their computers with an IP address configuration based on the YesWare static IP subnet.

- Procedure 12-3 on page 12-11 shows how to configure visitor computers to use YesWare static IP configuration services.

Procedure 12-1
Configuring Conference Room Billing

The YesWare/LAN administrator must use this procedure to configure the network used by the YesWare static IP configuration to provide IP-based conference services.

Requirements

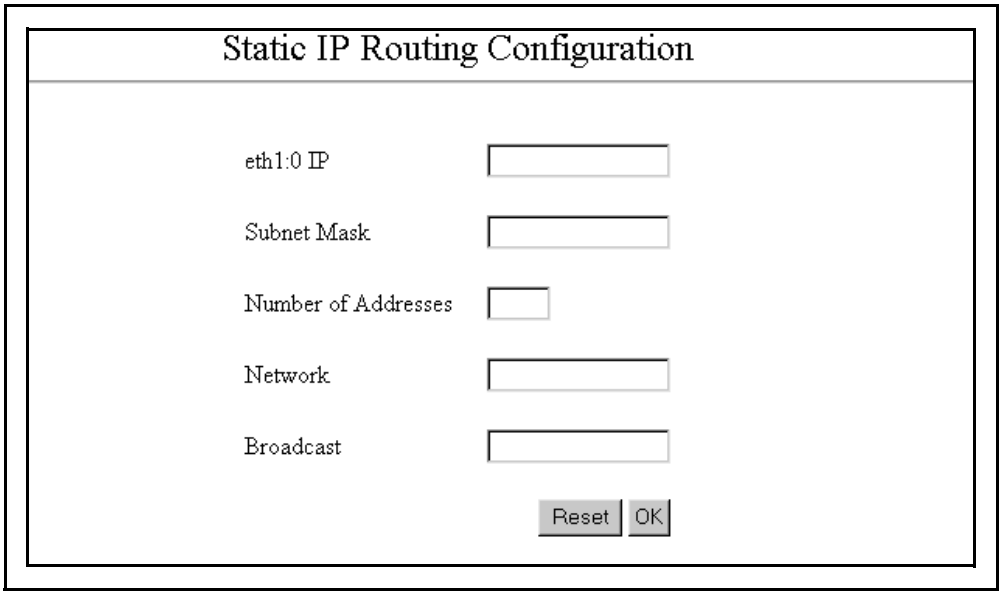
To set up the conference network using the YesWare static IP configuration, the YesWare/LAN administrator or service provider must provide the following:

- an available subnet with a range of static, Internet-routable IP addresses
- network and computer security plan for system visitors

Action

Step	Action
1	Add a route to the router that maintains the YesWare static IP network to use the **ETH 0** interface as its gateway.
1	Browse to the *Provisioning Wizard* module in the YesWare software group.
2	Click the Setup operation link under the **Static IP Provisioning** function to launch the "Static IP Routing Configuration" dialog as shown in Figure 12-2.

Figure 12-2
Static IP Routing Configuration dialog



—continued—

Procedure 12-1 (continued)
Configuring Conference Room Billing

Step	Action

3 Complete the "Static IP Routing Configuration" dialog according to Table 12-1.

Table 12-1
Conference Room Network Configuration dialog settings

Field	Specification
eth1:0 IP	Enter the IP address of the network gateway used by the host network to access the WAN. This address is typically the first addressable IP address in the range. For example, in the Class C IP address range 172.17.10.0-172.17.10.255, the gateway address would typically be **172.17.10.1.** ***Note:*** Do NOT enter the IP address of **ETH 0** in this field. **ETH 0** serves only as an "internal" gateway for the **ETH 1:0** subnet, and cannot serve as a LAN gateway.
Subnet Mask	Enter the network mask for the *Conference Scheduler* subnet. This address is typically **255.255.255.0**, **255.255.0.0**, or **255.0.0.0**.
Network	Enter the network address of the subnet used for the static IP address pool. All visitor IP addresses generated using the "Static IP Routing Configuration" dialog will come from this subnet. This address is typically the first IP address in the range. For example, in the Class C IP address range 172.17.10.0-172.17.10.255, the network address would typically be **172.17.10.0.**
Broadcast	Enter the broadcast address for the YesWare static IP subnet. This address is typically the last IP address in the range. For example, in the Class C IP address range 172.17.10.0-172.17.10.255, the broadcast address would typically be **172.17.10.255.**

4 Click the "Submit" button to configure the *Conference Scheduler* network.

You have completed this task.

Procedure 12-2
Scheduling conference room IP addresses

Use this procedure and the **Port Schedules** function to schedule conference meeting rooms.

Requirements

YesWare operators that book conference rooms using the **Port Schedules** function must have the following provided to them:

- YesWare static IP network configured and IP address pool generated
- Price schedule with rates provided for conference durations and number of IP addresses
- Operator login name and password for YesWare and the IP address of the BitStorm Server

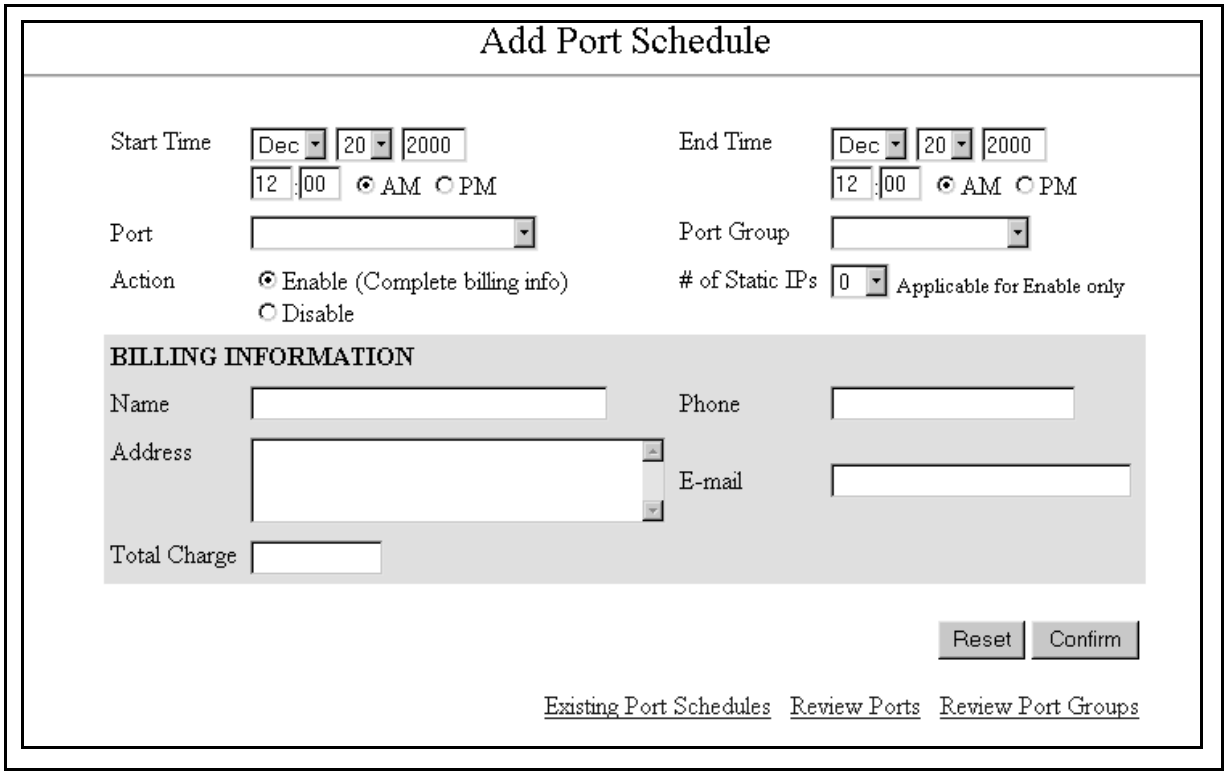
Action

Step	Action
1	Browse to the IP address of the BitStorm Server for the site and login. Use the login name and password provided by the YesWare administrator.
2	Click the Create operation link to launch the "Add Port Schedule" dialog. Figure 12-3 on page 12-7 shows the "Add Port Schedule" dialog. Table 12-2 on page 12-8 describes the field entry specifications and information requirements of this dialog.

—continued—

Procedure 12-2 (continued)
Scheduling conference room IP addresses

Figure 12-3
Add Port Schedule dialog



—continued—

Procedure 12-2 (continued)
Scheduling conference room IP addresses

Table 12-2
Add Printer dialog field specifications

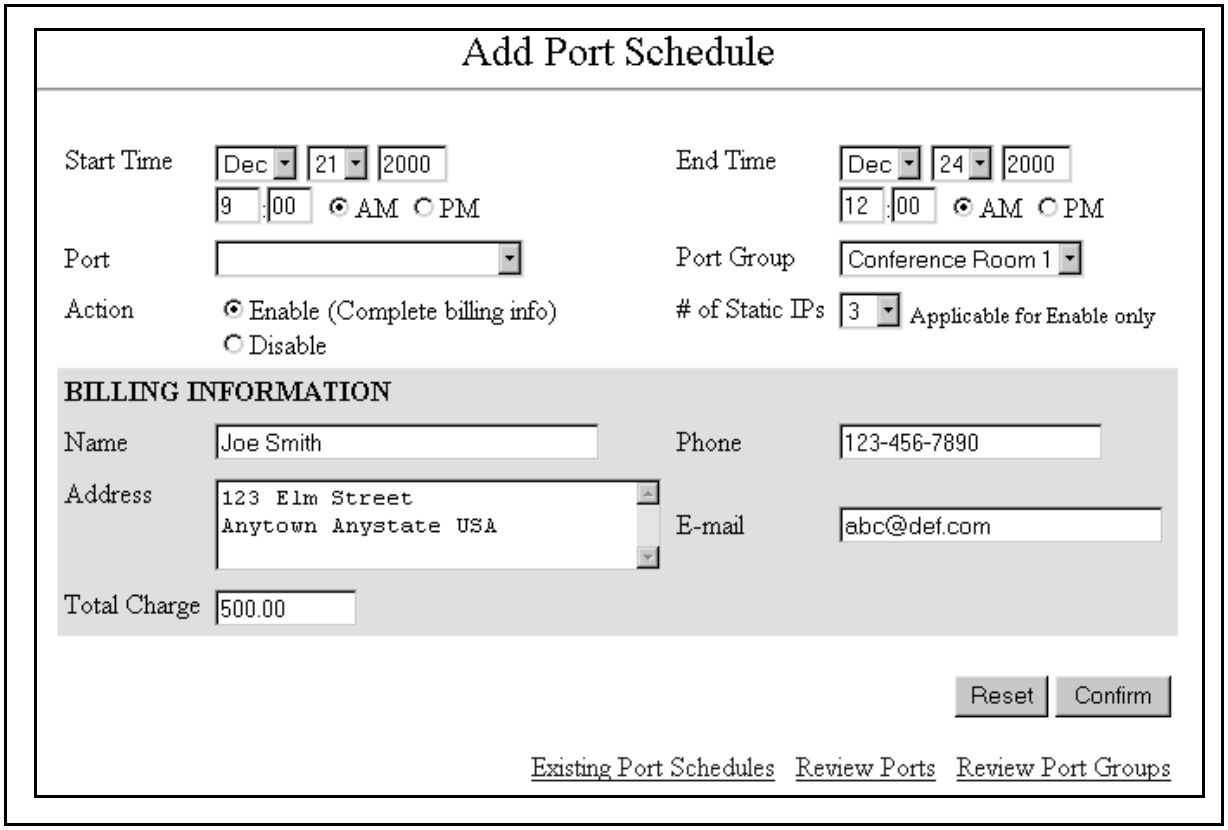
Field	Specification
Start Time	Enter the day, month, year and time for the start of the port schedule.
End Time	Enter the day, month, year and time for the end of the port schedule.
Port	Select the port to apply the schedule. If this field is selected, do not select a group from the "Port Group" field.
Port Group	Select the Port Group to apply the schedule. If this field is selected, do not select a port from the "Port" field.
Action	Select the action to apply during the port schedule (enable or disable the port. If "Enable" is selected, the "BILLING INFORMATION" fields must be completed.
# of Static IPs	If static IP addresses are being sold to the customer, use this field to select the number of IP addresses to be provided. To use this feature, the IP addresses must be generated using the **Static IP Provisioning** function in the *Provisioning Wizard* module. This feature is applicable only for the "Enable" Action.
BILLING INFORMATION	Enter the customer billing information, including the following: Customer Name || Phone number || Billing address || E-mail address* *E-mail address is optional.
Total Charge	Enter the total amount to be charged for the scheduled service.
Confirm	Click the "Confirm" button to generate the port schedule and receipt.

—continued—

Procedure 12-2 (continued)

Step	Action
3	Complete the information required for the customer and conference room in the "Add Port Schedule" dialog. Figure 12-4 shows an example of a completed "Add Port Schedule" dialog.

Figure 12-4
Add Port Schedule dialog complete

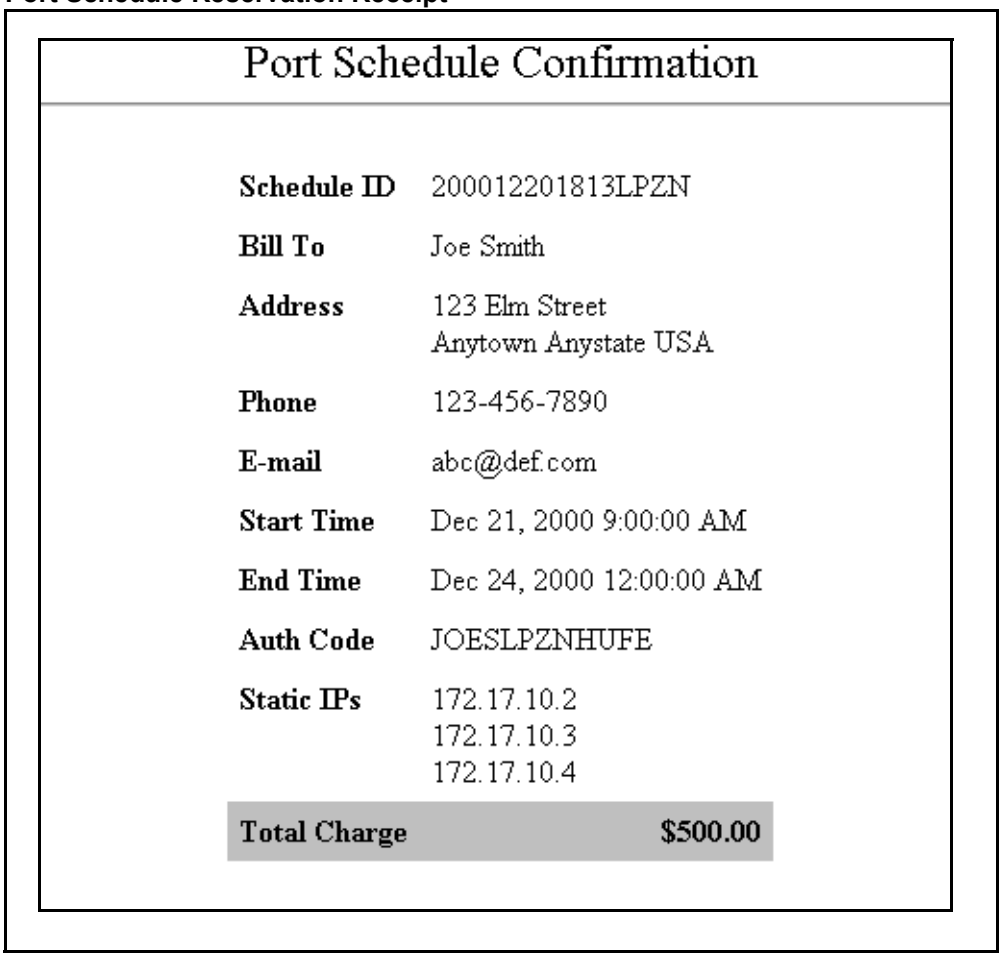


—continued—

Procedure 12-2 (continued)
Scheduling conference room IP addresses

Step	Action
4	When completed, click the "OK" button in the "Add Port Schedule" dialog. The system will generate a "**Port Schedule Confirmation"** as shown in Figure 12-5.
5	Accept payment from the customer and print out two copies of the "Port Schedule Confirmation" page. Give the customer one copy of the "Port Schedule Confirmation" page and keep the second copy for company records according to local office administration procedures.

Figure 12-5
Port Schedule Reservation Receipt



STOP

You have completed this task.

Procedure 12-3
Configuring visitor computers for Conference Room Billing

Use this procedure to configure the visitor computers to use YesWare static IP Configuration services and Conference Room Billing.

> ***Note:*** This procedure presents the visitor configuration using a Windows 95 PC. The configuration requirements of other network operating systems will vary, but the basic procedure should be the same.

Requirements

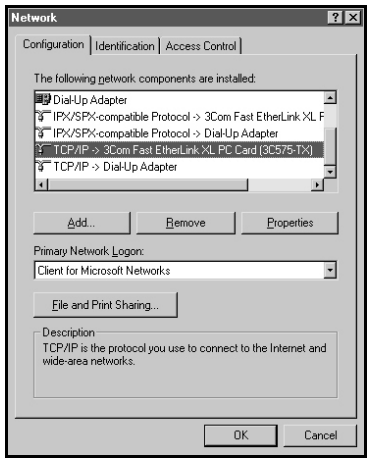
This procedure requires the following:

- Visitor computer with an Ethernet 10Base-T network interface card (NIC) and networking capabilities ("Network Neighborhood") installed
- TCP/IP protocol specified in the visitor computer Network/Configuration settings dialog and used by the Ethernet NIC
- "Port Schedule Confirmation" generated by the "Add Port Schedule" dialog as described in Procedure 12-2 on page 12-6

Action

Step	Action
1	Right-click on the **Network Neighborhood** icon on the visitor PC and select "Properties" from the pop-up menu. The **Network** dialog appears with the Configuration tab open as shown in Figure 12-6.

Figure 12-6
Network dialog and Configuration tab

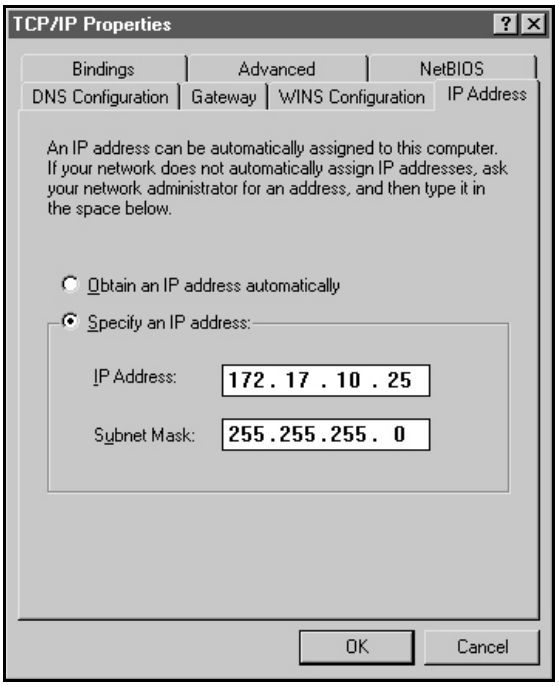


—continued—

Procedure 12-3 (continued)
Configuring visitor computers for Conference Room Billing

Step	Action
2	Select the TCP/IP protocol associated with the Ethernet NIC and click the "Properties" button. *The Network TCP/IP Properties dialog appears as shown in Figure 12-7.*

Figure 12-7
Network TCP/IP Properties dialog


TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
IP Address:
172 . 17 . 10 . 25
Subnet Mask:
255 . 255 . 255 . 0
OK
Cancel

3	In the **IP Address** tab, specify an IP address and Subnet Mask for the visitor computer. The IP address must come from the pool of addresses on the "**Port Schedule Confirmation"** generated by YesWare. The Subnet Mask must be provided by the network administrator.
4	In the **Gateway** tab, add the network gateway provided by the network administrator.
5	If necessary, enable DNS and enter the host and domain name for the visitor computer provided by the network administrator.
6	Click OK to accept the TCP/IP and Network Configuration settings, and re-start the visitor computer. The visitor computer should be ready to connect to the scheduled conference meeting room.

STOP

You have completed this task.

Providing YesWare VBN printing services

This chapter describes the requirements, functions and procedures for provisioning YesWare to provide visitor printing services for a VBN.

Chapter topic list

This chapter includes the following topics.

Topic	See
YesWare VBN printing requirements	page 13-2
YesWare VBN print services visitor billing	page 13-4

Chapter task list

This chapter includes the following tasks:

Procedure	Task	See
13-1	Provisioning visitor printing services	page 13-5
13-2	Using visitor printing services	page 13-9

YesWare VBN printing requirements

The YesWare VBN printing capability gives VBN guest visitors the capability of printing from their computer to a networked printer on the YesWare VBN or host network. The following sections describe the requirements and limitations of the YesWare VBN printing capability.

VBN system requirements

To use visitor printing services, the YesWare VBN system in the facility must have the following:

- BitStorm Server installed and configured as an Ethernet-TCP/IP node on the host LAN and integrated with the facility PMS system as described earlier in this document
- VBN provisioned using the **Port Configuration** function as described earlier in this document, with the following features:
  - — **guest** port Use Context
  - — "Print Service" checkbox enabled
- at least one networkable PostScript or PCL printer installed and configured as an Ethernet-TCP/IP node on the same host LAN as the BitStorm Server **ETH 0** interface, or on the same LAN segment as the YWS **ETH 1** interface

Procedure 13-1 on page 13-5 describes how to configure YesWare for visitor printing services.

VBN printer requirements

Printers supported by the YesWare VBN module must meet the following requirements:

- no more than five networked printers in the VBN
- Ethernet LAN support using the TCP/IP networking protocol
- PostScript or PCL printer description language support

  Note: Hewlett-Packard PCL printer language is supported, but is not as easy to administer using YesWare. See “YesWare VBN print services visitor billing” on page 13-4 for more information.

VBN printer limitations

The YesWare VBN printing service does not support the following:

- external, dedicated print-servers such as ***Jet Direct*** print servers
- "Win" printers designed specifically for the ***Windows*** platform (95/98/2000/NT)

YesWare VBN print services administrator requirements

The printer administrator for visitor printing services must know the level, version and driver-compatibility requirements of the PostScript or PCL language used by the printers.

> ***IMPORTANT - <u>All</u> users must know printer-driver requirements***
> Printer-driver compatibility requirements **<u>MUST</u>** be communicated to the hospitality front-desk personnel and visitors. YesWare visitor printing services **<u>WILL NOT FUNCTION</u>** if the printer drivers on visitor computers are not compatible with the facility printers.

Providing driver files

To eliminate the potential for system problems, the administrator or service-provider may want to provide driver files to visitors that are compatible with the facility printers. In addition, the visitor printing page has HTML links to the **Adobe Systems** and **Hewlett-Packard** web sites. YesWare visitors can download free PostScript printer drivers from the Adobe site, and free PCL printer drivers from the Hewlett-Packard site.

YesWare VBN print services visitor billing

Only YesWare visitors connected to "guest" ports can browse to the printing services page and use (and be billed for) visitor printing services. YesWare visitors who use visitor printing services are billed for both YesWare Internet access and printing services.

Print Services billing method

As described in Chapter 1, the guest Port Use Context allows visitors to bill YesWare Internet access to their rooms through the PMS, or be billed "up-front" by purchasing an Authorization Code. YesWare VBN print services bills visitors for printing services using the facility PMS. Charges incurred for printing services appear on the room bill of the visitor separate from any YesWare Internet access charges, or in addition to any Authorization Code fees.

Visitors can use YesWare VBN print services to print PostScript or PCL file types on the host facility printer. Each of these file types is billed differently, as described in the following sections.

Visitor PostScript file billing

The YesWare VBN print services feature works best with PostScript printers and drivers. Visitors who print PostScript files are billed on a per-page basis and are charged based on the rate configured using the "Rate ID" selected in the "Add Printer" dialog. For example, if a visitor prints a 20-page PostScript file at a host facility where the configured rate is 1.00, a "room charge" of $20.00 will be generated in the facility PMS (in addition to any other room charges).

Visitor PCL file billing

Host facilities that choose to use Hewlett Packard PCL printers and drivers with YesWare VBN print services must carefully calculate the rate charged for visitor printing services. YesWare VBN print services cannot bill visitors using PCL printer drivers on a per-page basis. If PCL printers and drivers are used, the "Rate ID" selected in the "Add Printer" dialog bills visitors on a per-job basis. The room charge is the same whether the visitor prints a 20-page file or a 2-page file. PCL also imposes a file size maximum of 100 MB on all print jobs.

To effectively set the service-rate charge for PCL files, the YesWare VBN print services administrator must evaluate how much the service is used. Because, for example, if a user prints a 20-page PCL file at a host facility where the configured rate is 1.00, YesWare VBN print services will generate a PMS "room charge" of $1.00. If the same visitor then sends a 2-page file to the printer, the "room charge" again will be $1.00. Therefore, the administrator must set a rate that attempts to account for an "average" number of pages in a "typical" visitor document.

Procedure 13-1
Provisioning visitor printing services

Use this procedure to provision visitor printing services using the *Print Services* module.

Requirements

See the requirements in "YesWare VBN printing requirements" on page 13-2. To configure YesWare VBN print services, the system administrator must have at least one networkable printer connected to a specific IP address. The IP address can be on the VBN (**ETH 1**) or host network (**ETH 0**) side of the network.

Action

Step	Action

1 Install a networkable printer onto the **ETH 0** (host LAN) or **ETH 1** (VBN) side of the YWS system. Configure the printer according to the following table:

If the printer is installed on	Then
ETH 0	configure the printer on the host LAN according to standard Ethernet TCP/IP networking procedures
ETH 1	• configure the printer with an IP address on the **ETH 1** subnet. ***Note:*** Be sure not to conflict with any significant YesWare IP addresses such as the DHCP range or Ethernet switch IP addresses. • configure IP address of the **ETH 1** interface as the printer's network gateway • configure the network mask of the **ETH 1** interface set as the printer's subnet mask

2 Browse to the BitStorm Server and login to YesWare.

3 Provision a port configuration with a **guest** port Use Contexts and "Print Service" enabled as described in this document.

4 Select the rooms to receive printing services. Provision these rooms with the "print service" port configuration.

5 Create a VBN "printing" rate using the Create operation in the **Rates** function of the *Billing* module.

Note: Rates must be entered in the 0.00 format. For example, a rate of 10 is not acceptable, but must be entered as 10.00.

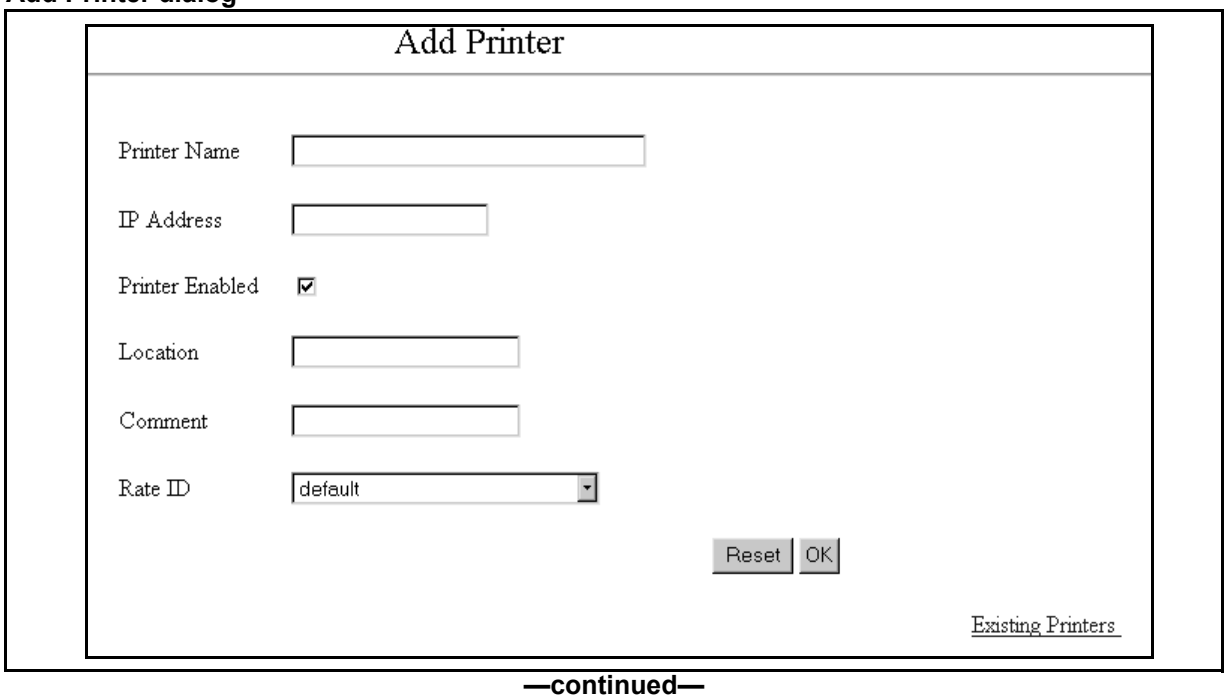
6 Repeat step 5 to assign rates for as many service types as required (such as separate rates for color printing, B/W printing, transparency printing).

—continued—

Procedure 13-1 (continued)
Provisioning visitor printing services

Step	Action
7	Select the Create operation in the **Printers** function of the *Switches and Ports* module. The "Add Printer" dialog appears as shown in Figure 13-1.

Figure 13-1
Add Printer dialog



—continued—

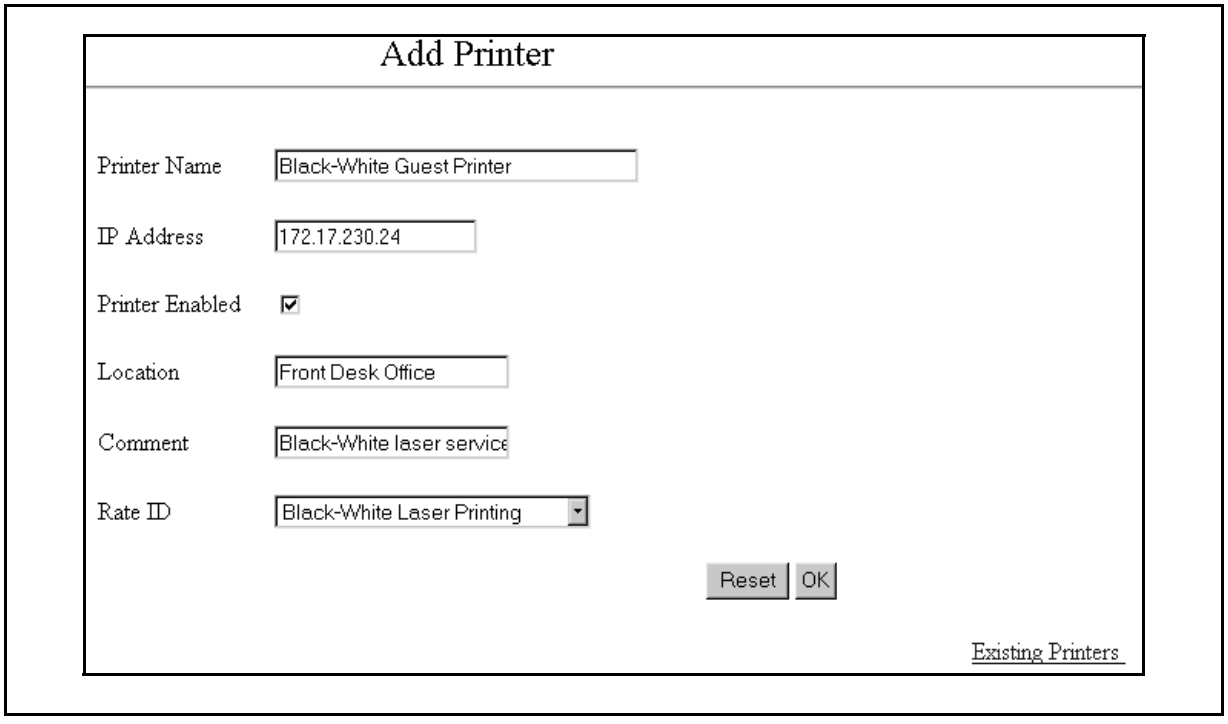
Procedure 13-1 (continued)
Provisioning visitor printing services

Step	Action
8	Enter the required information for the printer according to the specifications listed in Table 13-1. Figure 13-2 shows an example printer configuration.

Table 13-1
Add Printer dialog field entry specifications

Field	Specification
Printer Name	Enter the name assigned to the printer in the VBN system.
IP Address	Enter the network IP address assigned to the printer. The IP addresses entered here must exactly match the IP address configured in the local network.
Printer Enabled	This checkbox must be selected for the printer to provide service.
Location	Enter the location name assigned to the printer in the VBN system.

Figure 13-2
Example / Printer configuration



9	Click the "OK" button to add the printer configuration to the database.
10	Repeat steps 8 and 9 for up to five printers. Each additional printer will be added in the database table beneath the first printer configured.

—continued—

Procedure 13-1 (continued)
Provisioning visitor printing services

Step	Action
11	Use Procedure 13-2 on page 13-9, “Using visitor printing services” to test the Print Services configuration by printing a document. Verify the following: • document prints correctly and on the correct printer • PMS generates a room charge that is correct in both the amount charged and the room location/section

You have completed this task.

Procedure 13-2
Using visitor printing services

YesWare visitors can use this procedure to print a document using the YesWare *Print Services* module.

Note: The service-provider can use the instructions in this procedure to create an instruction-sheet for visitors to be placed in guest rooms.

Requirements

Visitors using YesWare print services must have the following loaded on their computer:

- Ethernet 10Base-T network interface card (NIC) and networking capabilities ("Network Neighborhood") installed
- Ethernet 10Base-T (CAT 5) cable
- TCP/IP protocol specified in the visitor computer Network/Configuration settings dialog and configured for use by the Ethernet NIC
- PostScript or PCL printer driver loaded on the visitor computer compatible with the hospitality facility printer
- Web-browser (Internet Explorer/Netscape Navigator 4.0 or later)

Action

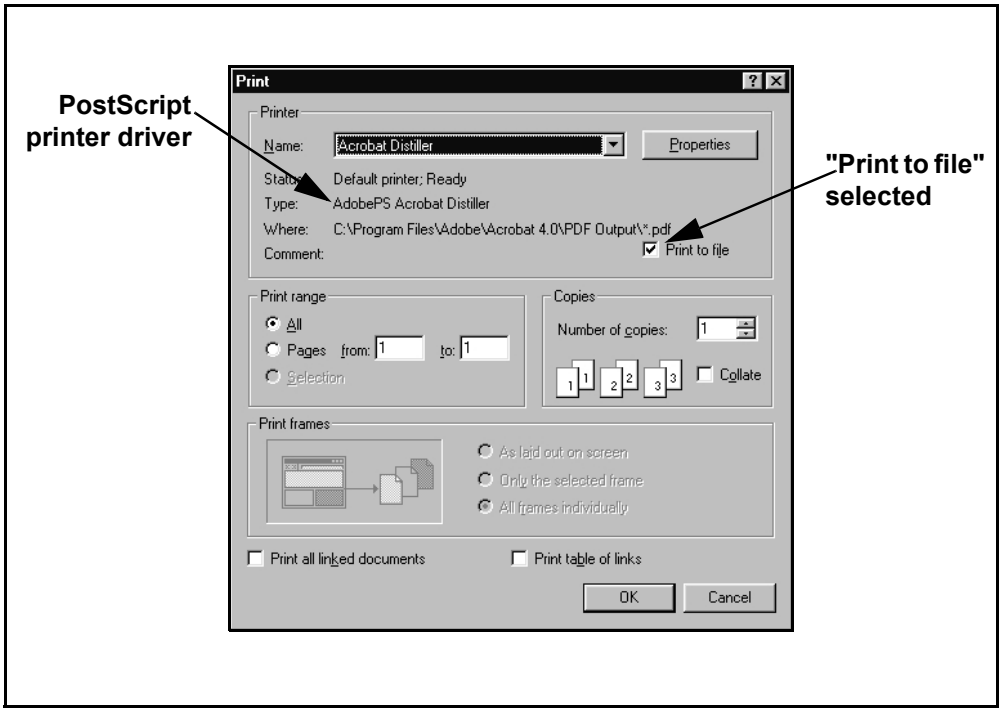
Step	Action
1	With the computer turned off and using the Ethernet cable, connect the computer's Ethernet card to the EtherLoop or Ethernet port in the room. Start the computer.

—continued—

Procedure 13-2 (continued)
Using visitor printing services

Step	Action
2	Print the document to "file" using the required compatible printer driver (see Figure 13-3).

Figure 13-3
Print-to-file



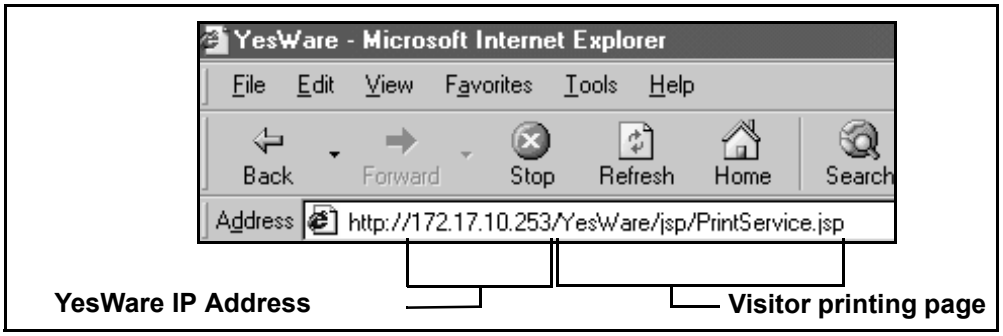
3 Launch the web-browser and, when prompted, click "OK" to accept room charges.

—continued—

Procedure 13-2 (continued)
Using visitor printing services

Step	Action
4	From the Web, browse to the following IP address: **<YesWare Server IP Address>/YesWare/jsp/PrintService.jsp** Figure 13-4 shows an example of a visitor print services web-page IP address.

Figure 13-4
Browsing to the YesWare visitor printing page


YesWare - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search
Address http://172.17.10.253/YesWare/jsp/PrintService.jsp
YesWare IP Address
Visitor printing page

5 Follow the instructions on the web page. Click the "Browse" button(s) and browse to the location(s) of the PostScript or PCL version of the document file(s).

6 When the PostScript or PCL file(s) is listed in the entry field(s), click the "Submit" button at the bottom of the dialog. After a few moments, the file to be printed should appear in the "List of files to print" table.

7 Note the per-page rate for printing services. The charge for printing PostScript files will appear on the room bill as this rate multiplied by the number of pages in the document printed. PCL files will be charged at a flat rate on a per-job basis.

8 Click the "Print" button to print the files listed to the printer in the host facility.

STOP

You have completed this task.

Customizing the VBN web site

This chapter contains the requirements and procedures to customize the VBN web site used by YesWare visitors.

Chapter topic list

This chapter includes the following topics.

Topic	See
VBN page customization	page 14-2
YesWare VBN pages	page 14-3

Chapter task list

This chapter includes the following tasks.

Procedure	Task	See
Procedure 14-1	Creating the custom VBN web site	page 14-4

VBN page customization

Customizing YesWare VBN pages requires knowledge of java server pages, web page construction, HTML code. The default YesWare VBN pages must be used as the basis for creating the custom VBN pages, and must be edited manually to include the custom graphics and style sheets, and any other desired functions such as Javascripts, Java applets, and cgi-perl. Third-party software packages that "automatically" generate web pages should not be used to create YesWare VBN pages. However, these software packages can be used to create the "auxiliary" pages such as Virtual Concierge content and visitor Help pages to assist visitors using the YesWare service.

VBN page construction

The default YesWare VBN pages are constructed of java server pages and standard HTML code. Custom VBN pages are constructed by modifying these pages and using custom graphics and auxiliary pages and functions where required.

Tasks required for VBN page customization

Customizing YesWare VBN pages for the host web site includes the following major tasks:

- Retrieve the VBN pages from the BitStorm Server.
- Edit the VBN pages as required.
- Create other web pages and graphics
- Place the modified VBN pages and other content on the YWS.

The following section and procedure describe YesWare VBN page construction and the requirements and restrictions for using the VBN page components:

YesWare VBN pages

Each VBN page has a specific function in YesWare and certain usage requirements. Table 14-1 lists the VBN pages available for use in the YesWare system, and the purpose for which each page is used. These files are located on the BitStorm Server in the following directory:

[BitStorm Server ETH 0 IP Address]/home/vbn-user/

The files in Table 14-1 can be retrieved from this location and customized to meet service-provider requirements. However, these files must retain their identical file names when placed back on the BitStorm Server. Procedure 14-1 on page 14-4 contains the step-by-step procedure to retrieve these files and create the custom look-and-feel for the VBN web site. .

Table 14-1
VBN pages available in YesWare

VBN page name	YesWare system purpose
AuthorizationMainPage.jsp Headerstyle.html --ElasticBanner.jsp ----Menulogo.gif -----Elastic.gif	Main page structure used to launch all other pages based on the port Use Context.
AuthorizationGuestRoom.html AuthorizationAuthCodeProcess.jsp ---AuthorizationAuthCodeError.html AuthorizationChargeRoomProcess.jsp ---AuthorizationChargeRoomError.html	**AuthorizationGuestRoom.html** is the page presented to visitors connecting to ports with the **Guest** Use Context. • The "Process" pages allow visitors to accept a room charge or enter a valid Auth Code. • The "Error" pages are service-refusal pages presented to visitors who enter an invalid Auth Code or who refuse service being charged to the room.
AuthorizationCreditCard.jsp ProcessCredit.jsp	Authentication page presented to visitors connecting to ports with the **Credit** Use Context. Requires a valid visitor credit-card to authenticate visitors and Credit-Card Billing configured in YesWare as described in Chapter 6.
AuthorizationAuthCodeRoom.html AuthorizationAuthCodeProcess.jsp	Authentication page presented to visitors connecting to ports with the **Public** Use Context. Requires a previously-generated Auth Code to authenticate visitors.
AuthorizationPortUnknown.html	Page presented when visitor tries to access a page on the Server that does not exist or is disabled.
AuthorizationWelcome.html	"Thank You" page presented after successful validation of a visitor.

Procedure 14-1
Creating the custom VBN web site

Use this procedure to create the custom VBN web site.

Requirements

This procedure requires the following:

- basic knowledge of ***ftp*** commands
- ***ftp*** client computer with network access to the YWS
- knowledge of web page construction and design, including working with java server pages.

ftp commands

The following ftp commands are useful in this procedure:

- **binary:** Changes the ***ftp*** data transfer mode to the required binary mode.
- **cd**: Changes the target directory on the remote system
- **ls**: List file contents of current directory.
- **mget**: allows retrieval of multiple files on the remote system. For example, mget *.vbn will retrieve all VBN pages in the directory
- **mput**: allows placing of multiple files on the remote system (YWS).
- **prompt**: allows system to prompt before retrieving/deleting files. Default setting is "on," so enter this command only if you want to turn prompting off.

Enter **help** in ***ftp*** for a list of all available ***ftp*** commands.

Action

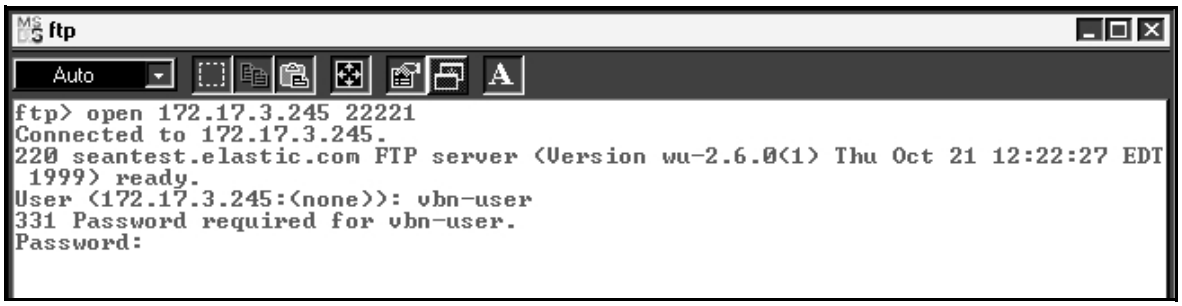
Step	Action
1	Start the ***ftp*** client application.
2	Open a connection to the YWS using port **2221**. After a few moments, the The system then prompts for a **"User:"** login. ***Note:*** Some workstation platforms (such as Windows NT) may require reconfiguration of *ftp* settings to use port 2221.
3	At the **User:** prompt, enter **vbn-user**. The system then prompts for a password. ***Note:*** Be certain to enter "vbn-user" and not "ftp-user." The **ftp-user** login is used only for retrieving SDR logs as described in Chapter 6.

—continued—

Procedure 14-1 (continued)
Creating the custom VBN web site

Step	Action
4	At the **Password:** prompt, enter the password of the **admin** user. This is the same password as the one used in the StormTracker Configuration Manager to configure the BitStorm Server on the host network (see Chapter 3). The default **admin** password is **etherloop**. Figure 14-1 shows an example **ftp-user** login to a BitStorm Server at **172.17.3.245**.

Figure 14-1
Logging into the YWS using *ftp*



5	Use the **binary** command to change the ***ftp*** data transfer mode to the required binary mode.
6	Use the **cd** command to change to the **/home/vbn-user/** directory on the BitStorm Server. All VBN pages used on the BitStorm Server are contained in this directory.
7	Use the **ls** command to list the VBN pages.
8	Retrieve the VBN pages as required using the **get** or **mget** command.
9	Edit the VBN pages and create custom content according to the requirements described in this chapter.
10	Use ***ftp*** to login to the BitStorm Server as the **vbn-user,** and use the **put** or **mput** command to place the customized VBN page content within the **/home/vbn-user/** directory.

STOP

You have completed this task.

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